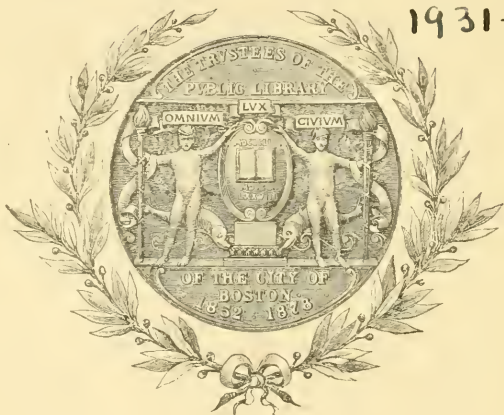






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ANNUAL REPORT  
OF THE  
PUBLIC WORKS DEPARTMENT  
FOR THE YEAR 1934

[DOCUMENT 24—1935]

Boston City Directory

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ANNUAL REPORT  
OF THE  
PUBLIC WORKS DEPARTMENT  
FOR THE  
YEAR ENDING DECEMBER 31, 1934.

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BOSTON, January 2, 1935.

HON. FREDERICK W. MANSFIELD,  
*Mayor of Boston.*

DEAR SIR,— In compliance with the Revised Ordinances, the annual report of the operations and expenses of the Public Works Department for the year ending December 31, 1934, is respectfully submitted. The Public Works Department, created by Ordinances 1910, chapter 9, now chapter 27 of the Revised Ordinances of 1925, was formed by consolidating the Engineering, Water and Street Departments.

ORGANIZATION.

The department is composed of six main divisions, viz.:

*Bridge and Ferry Division.*— This division, under a division engineer, has the charge and care of all bridges used as highways which are, in whole or in part, under the control of the city; and the care and management of the ferries owned by the city, including boats, slips, drops and buildings, and the maintenance and operation of the Sumner Tunnel.

NOTE.—The Boston and Cambridge Bridge Division, so called, is not, strictly speaking, a division of the Public Works Department, as this work is in charge of a commission of two, one member appointed by the Mayor under the provisions of chapter 412 of the Acts of 1904; but because of the fact that the present Commissioner of Public Works is the Boston member of this commission, and also because one half of the expense of the commission is defrayed by the Bridge Service, it is in this report treated as a division of the department.

*Highway Division.*—This division, under a division engineer, has charge of the construction, reconstruction and maintenance of roadways and sidewalks, and the care of lamps and lighting of streets, parks and alleys.

*Sanitary Division.*—This division, under a division engineer, has charge of the collection and removal of ashes, garbage and refuse, street cleaning, and the oiling and flushing of streets.

*Sewer Division.*—This division, under a division engineer, has charge of the construction and maintenance of sewers, catch-basins and waterways.

*Water Division.*—This division, under a division engineer, has the care of all water pipes in the water system, the laying and relaying of water mains and the care of high pressure fire system.

*Water Income Division.*—This division, under a division engineer, has charge of financial operations in connection with the sale of water, reading of water meter registrations, making out quarterly water bills for all consumers, forwarding said bills to City Collector's office, installation and maintenance of water meters and enforcement of payment of water bills.

#### *Bridge and Ferry Division.*

The vehicular tunnel connecting the city proper with East Boston which was constructed by the Transit Department was turned over to the Public Works Department, and it was named the Sumner Traffic Tunnel and opened for public use with appropriate exercises on June 30, 1934. Toll rates approved by the Department of Public Utilities, as required by chapter 297 of the Acts of 1929, were established as follows:

A.	Passenger car . . . . .	\$0.25
B.	Tractor without trailer . . . . .	.25
C.	Trailer not in excess of 2-ton capacity . . . . .	.25
D.	Trailer over 2 tons to 5-ton capacity . . . . .	.35
E.	Trailer over 5 tons to 10-ton capacity . . . . .	.50
F.	Trailer over 10 tons to 15-ton capacity . . . . .	1.00
G.	Trailer in excess of 15-ton capacity . . . . .	1.25
H.	Trucks not in excess of 2-ton capacity . . . . .	.25
I.	Trucks over 2 tons to 5-ton capacity . . . . .	.35
J.	Trucks over 5 tons to 10-ton capacity . . . . .	.50
K.	Trucks over 10 tons to 15-ton capacity . . . . .	1.00
L.	Trucks over 15-ton capacity . . . . .	1.50
M.	Bus with or without passengers . . . . .	.50
N.	Motoreycles . . . . .	.15
O.	Gas supplied to stalled vehicles in tunnel, per gallon, . . . . .	1.00

*Removal of Stalled Vehicles from Tunnel.*

P.	Passenger cars or tractors . . . . .	\$0.50
Q.	Trailer or truck not in excess of 2-ton capacity . . . . .	.50
R.	Trailer or truck over 2 tons to 5-ton capacity . . . . .	.70
S.	Trailer or truck over 5 tons to 10-ton capacity . . . . .	1.00
T.	Trailer or truck over 10 tons to 15-ton capacity . . . . .	2.00
U.	Trailer or truck in excess of 15-ton capacity . . . . .	2.50
V.	Bus . . . . .	1.50

Work is in progress on the repairing and strengthening of Northern Avenue Bridge, this work being necessary because of a serious break which developed in one of the main members of the draw span and on account of which the bridge had to be closed to travel. A government grant under the P. W. A. was obtained for this work.

The special committee designated under the provisions of chapter 36 of the Resolves of 1933 to consider the Chelsea North Bridge has made its report to the Legislature, and as a result of this report the city has been authorized by chapter 342 of the Acts of 1934 to proceed with the necessary repairs. The expense of the repairs is to be shared by the Commonwealth of Massachusetts, the City of Boston and the City of Chelsea. Plans and specifications covering the work to be done have been prepared and it is expected that the repair work on this structure will begin early next year.

General repairs, most of which were ordered by the United States Steamboat Inspection Service, were made on the ferryboats.

On March 15, 1934, the ferryboat "John H. Sullivan" was sold at public auction.

*Highway Division.*

Ten major highways were selected for reconstruction under the grant agreement with the United States Government, these streets being Alford street, Charlestown; Savin Hill avenue, Dorchester; Walk Hill street, West Roxbury and Dorchester; La Grange street, West Roxbury; Adams street, Dorchester; Southampton Street, Roxbury and South Boston; Old Colony avenue, South Boston; Hyde Park avenue, West Roxbury; Woodrow avenue, Dorchester, and Ashmont street, Dorchester. Several of these streets have been finished and work is in progress on others, and the entire program will be completed next year.

The gas street lighting contract made ten years ago terminated on April 1 of this year. Arrangements should be made for another contract.

*Sewer Division.*

A million dollar program for sewerage works has been prepared in connection with which a grant has been requested from the United States Government. The program of work to be done includes the construction of covered channels for Stony brook in West Roxbury; Shepard brook in Brighton; Tenean creek in Dorchester, and other open brook courses which have been the sources of flooding especially following heavy storms. There has also been included in this program the sewerage works necessary in connection with the P. W. A. program of the Highway Division.

*Sanitary Division.*

The usual activities of this division were carried on during the year. The Sanitary Division yard on North Grove street, which had been the headquarters of the North and West End districts for many years, was closed during the year, when the property was purchased by the Massachusetts General Hospital.

*Water Division.*

This division during the year carried on its policy of replacing the older and smaller size water mains with pipes of adequate size for fire prevention and for the domestic supply.



The expenditures under the several appropriations for the different services for the year 1934 were as follows:

DIVISIONS AND SERVICES.	Current Expenses.	Special Appropriations.	Total Expenditures.	Balance December 31, 1934.
Central Office.....	\$68,175 44	.....	\$68,175 44	
Bridge Service.....	363,552 98	\$72,353 77	435,906 75	\$104,232 16
Ferry Service.....	334,380 94	2,698 90	334,380 94	67,264 00
Lighting Service.....	990,322 41	.....	990,322 41	
Paving Service.....	1,015,212 53	895,915 81	1,911,128 24	213,479 14
Sanitary Service.....	2,224,258 90	.....	2,224,258 90	
Sewer Service.....	454,503 66	511,281 27	965,784 93	231,218 42
Sumner Traffic Tunnel.....	222,364 68	.....	222,364 68	47,635 32
Water Service.....	940,578 22	1,925 80	942,504 02	42,908 22
Water Income.....	232,322 40	.....	232,322 40	
Totals.....	\$6,845,672 16	\$1,484,175 55	\$8,327,148 71	\$706,737 26

Yours respectfully,

C. J. CARVEN,  
*Commissioner of Public Works.*

## REVENUES, 1934.

*On Account of the Public Works Department, As Per Auditor's Statement.*

Central Office:		
Sale of plans, etc.		\$2,293 50
Bridge Service:		
Albany Street Bridge	\$358 66	
Chelsea North Bridge	1,314 57	
Meridian Street Bridge	7,951 88	
Clerical services	187 50	
Sale of material	60 00	
Rent	200 00	
		10,072 61
Charlestown Bridge:		
Rents		1,530 00
Ferry Service:		
Tolls	\$50,990 00	
Rent	169 00	
Commission on telephones	68 50	
Cleaning telephone booths	48 00	
Concessions	11 00	
Sale of old boiler	35 00	
		51,321 50
Lighting Service:		
Damage to posts		275 00
Paving Service:		
From assessments on abutters for cost of laying sidewalks in front of their premises, including materials for the same	\$43,486 46	
Permits	9,905 36	
Sale of material	1,354 72	
Labor and materials (chapter 27, section 9, Revised Ordinances, 1925)	15 00	
Labor and materials furnished, etc.	88 16	
Use of rollers	31 25	
Rent of signs	615 00	
Repairing signs	80 62	
Sale of junk	19 40	
		55,595 97
Sanitary Service:		
Collection of commercial waste	\$23,108 14	
Sale of manure	1,062 24	
Removal of dirt	626 27	
Damage to fence	50 21	
Sale of junk, etc.	114 25	
Cleaning dumps	55 00	
		25,016 11
Sewer Service:		
Pumping sewage, amount received from Commonwealth	\$17,857 00	
Entrance fees	2,191 06	
Labor and materials furnished	996 20	
Assessment	14 52	
		21,058 78
Carried forward		\$167,163 47



The records of the department show that there are now 2,639 persons eligible for employment in the several divisions, and of that number 2,601 were upon the January, 1935, pay rolls.

## Grade and Number of Employees.

TITLE.	SERVICES.										Total.
	Central Office.	Paving and Lighting.	Sewer.	Sanitary.	Street Cleaning.	Ferry.	Tunnel.	Bridge.	Water Income.	Water.	
Commissioner.....	1										1
Division engineers.....		1	1	1				1	1	1	6
Engineers, chief.....		1	1								2
Executive secretary.....	1										1
Executive clerks.....	2	2						1	1	1	7
Clerks.....	7	31	11	10	2	1	1	2	28	22	115
Assistant engineers (civil).....		14	26	1				9		5	55
Draughtsmen.....		1	11					2		2	16
Instrumentmen.....		14	13					4		5	36
Rodmen.....		7	7					2			16
Inspectors.....		33	40	50	25			4	1	16	169
Foremen.....		11	5	12	10			1		8	47
Subforemen.....		17						3			20
Blacksmiths and assistants.....		2	2	14						2	20
Blueprinters.....			6								6
Chauffeurs-teamsters.....		48	20	78	37		16	3		8	210
Carpenters and assistants.....		12	3	5		1		12		6	39
Chief inspectors.....		1	1								2
Cement testers and assistants.....			4								4
Chemists and assistants.....		2									2
Constables.....		11	1	5	2				6		25
Cashiers and assistants.....				1		1	2		2		6
Drawtenders and assistants.....								126			126
Deckhands.....						12					12
Engineers (steam).....		8	5			9					22
Electricians.....			2				9	1			12
Emergency repairers.....										42	42
Firemen.....		3	9			22					34
Gatemen.....			4			7					11
General foreman.....										1	1
<i>Carried forward.....</i>	11	219	172	177	76	53	28	171	39	119	1,065

## Grade and Number of Employees.—Continued.

TITLE.	SERVICES.										
	Central Office.	Paving and Lighting.	Sewer.	Sanitary.	Street Cleaning.	Ferry.	Tunnel.	Bridge.	Water Income.	Water.	Total.
<i>Brought forward</i> .....	11	219	172	177	76	53	28	171	39	119	1,065
Harnessmaker and assistants.....				3							3
Head chauffeurs.....		5			1						6
Horseshoers.....				6							6
Janitor.....						1					1
Matrons.....						4					4
Joiners.....						3					3
Laborers.....		245	80		100	8		6	3	98	540
Master mechanics.....		2		1		3			2	2	10
Machinist and assistants.....			3			6	1	1		13	24
Meter testers.....									2		2
Meter readers.....									38		38
Masons (stone and brick).....			10	1						1	12
Medical inspector.....				1							1
Oilers, filth hoisters.....			19			7					26
Pipe fitters.....						2					2
Pavers.....		44								1	45
Plumbers.....										11	11
Painters.....		6	1	10		3		3		2	25
Captains.....						9					9
Quartermasters.....						7					7
Repairers and auto mechanics.....		23	2		2				19	110	156
Roofer.....						1					1
Rigger.....						1					1
Sealers.....									2		2
Sewer flushers.....			27								27
Supervisors and deputy.....	1	2		1		1		1			6
Stenographers.....		1	2								3
Stonecutters.....		10	2								12
Superintendents and deputy..		2							1		3
Stockkeeper.....				1							1
Stablemen.....		6		12	20						38
Teamsters and helpers.....		48		306	116						470
<i>Carried forward</i> .....	12	613	318	519	315	109	29	182	106	357	2,560

## Grade and Number of Employees.— Concluded.

TITLE.	SERVICES.										
	Central Office.	Paving and Lighting.	Sewer.	Sanitary.	Street Cleaning.	Ferry.	Tunnel.	Bridge.	Water Income.	Water.	Total.
<i>Brought forward</i> .....	12	613	318	519	315	109	29	182	106	357	2,560
Telephone operators.....					1					1	2
Tollmen-guards.....						10	33				43
Chief veterinarian.....					1						1
Watchmen.....		1		5	5			1			12
Wharfingers.....				3							3
Wharfman.....				1							1
Wheelwrights and assistants..				4							4
Yardmen.....		5	2	4	1					1	13
Totals.....	12	619	320	536	323	119	62	183	106	359	2,639

## Number of Employees Actually Employed January 1, 1934, and January 1, 1935.

	Tunnel.	Central Office.	Bridge.	Ferry.	Water Income.	Paving and Lighting.	Sanitary.	Sewer.	Street Cleaning and Watering.	Water.	Total.
January 1, 1934.....	....	45	183	142	119	683	555	321	339	385	2,772
January 1, 1935.....	62	12	183	118	105	607	524	315	320	355	2,601

*Total Eligible Force.*

January 1, 1934.....	....	45	189	150	123	695	567	326	344	386	2,825
January 1, 1935.....	62	12	183	119	106	619	536	320	323	359	2,639

## Appointments, Transfers, Resignations, Retirements, Deaths, etc., of Employees.

Died.	Retired.	Transferred to Other Depart- ments.	Transferred to Other Services.	Discharged.	Resigned.	January 1, 1934.	SERVICES 1934, 1935.	January 1, 1935.	Transferred from Other Services.	Transferred from Other Depart- ments.	Reinstated.	Appointed.
....	2	....	33	....	....	45	Central Office.....	12	1	1	....	....
4	5	2	....	....	....	189	Bridge.....	183	1	4	....	....
2	11	....	19	1	....	150	Ferry.....	119	2	....	....	....
13	31	....	3	43	....	695	Lighting and Paving.....	619	6	7	....	1
16	12	1	5	12	4	567	Sanitary.....	536	11	....	1	7
7	7	....	9	....	4	344	Street Cleaning.....	323	5	1	....	....
8	6	....	....	8	2	326	Sewer.....	320	8	4	....	6
6	23	1	4	2	3	386	Water.....	359	9	....	1	2
3	5	....	....	14	1	123	Water Income.....	106	2	1	....	3
....	....	....	....	....	....	....	Tunnel.....	62	28	2	....	32
59	102	4	73	80	14	2,825	Totals.....	2,639	73	20	2	51

PART II.  
APPENDICES.

APPENDIX A.

---

REPORT OF THE DIVISION ENGINEER OF THE  
BRIDGE AND FERRY DIVISION.

---

BOSTON, January 2, 1935.

MR. C. J. CARVEN,  
*Commissioner of Public Works.*

DEAR SIR,—I respectfully submit the following report of the income, expenditures and operation of the Bridge and Ferry Division for the year ending December 31, 1934. The expenditures of the division in the regular maintenance appropriations of the department were \$920,298.60. Under a number of special appropriations \$120,444.64 was expended, making the total expenditures for the year \$1,040,743.24. This does not include certain expenditures for construction work for other departments, which work was supervised by the engineers of this division.

The Sumner Traffic Tunnel, constructed by the Transit Department, was opened to travel on June 30, 1934. On this date the division took charge of the operation of the tunnel, and a new service (Tunnel Service) was thereby added to the Bridge and Ferry Services; these three services now constituting the Bridge and Ferry Division.

Summer Street Bridge, over Fort Point Channel, was damaged by fire on July 19, 1934, and repairs were made by the Boston Bridge Works, Inc., W. H. Ellis & Son Company, and Stearns, Perry & Smith at a cost of about \$9,500.

The work of repairing and strengthening Northern Avenue Bridge was started October 3, 1934, under a contract with M. F. Gaddis. A detailed statement of this work appears further on in this report.

The ferryboat "John H. Sullivan" was sold at public auction March 15, 1934, for \$7,050.

The more important works undertaken during the past year in the Bridge Service were the repairing of Bennington Street Bridge; repairs and painting of spans 1 and 2 of Charlestown Bridge; repairs to draw

pier of Chelsea North Bridge; strengthening and redecking Granite Avenue Bridge; repairing and strengthening Northern Avenue Bridge; repairs to Summer Street Bridge, over Fort Point Channel, etc.

House Bill No. 1625, providing for the repair and strengthening of the Chelsea North Bridge, over the Mystic river, by the City of Boston, was passed by the Legislature. Under the provisions of this act the City of Boston is authorized to repair and strengthen the bridge at a cost not exceeding \$270,000; 50 per cent of the cost of this work is to be paid by the Commonwealth, from the Highway Fund. Of the balance of said cost  $62\frac{1}{2}$  per cent shall be paid by the City of Boston and  $37\frac{1}{2}$  per cent by the City of Chelsea. Work will be started early in 1935.

*Federal Emergency Relief Administration.*

The following Federal Emergency Relief projects were supervised by this division:

Meridian Street Bridge, Longfellow Bridge and Broadway Bridge were chipped, cleaned and painted.

Repaving and repairs were made to the approaches of the Meridian Street Bridge and the Chelsea Viaduct was repaved and a guard rail constructed.

Major repairs were made to Blakemore Street Bridge, in order to increase the load capacity from 8 to 15 tons.

The North and South Ferry Drops, Boston and East Boston sides, were painted.

Work of splicing piles, replacing decayed pipe caps, stringers, planking, etc., was done at Dover Street Bridge, on both fender piers. Both piers have been practically rebuilt.

Survey and record plans were made of the various drawbridges.

The Election Department building, at the corner of Broadway and Dorchester avenue, was repaired.

Work was done under a project for the removal of coal pocket and the construction of a recreation pier at the North Ferry, East Boston.

Extensive alterations were made to the office of the Bridge and Ferry Division, 602 City Hall Annex.

*Bennington Street Bridge, East Boston.*

A contract with Groisser & Schlager Iron Works was approved by the Mayor on June 14, 1934, to renew two of the steel floor beams and to make certain other

repairs to the other steel members, such as additional cover plates, new seat angles and the incidental welding and riveting. Work under this contract was completed on June 20, 1934, at a cost of \$1,108.61.

*Charlestown Bridge.*

A contract with John F. Shea Company, Inc., was approved by the Mayor on November 30, 1934, to repair the first two fixed spans, Boston side. The steel floor beams of these two spans were severely corroded and reduced in area of cross-section primarily on account of the nature of discharge from an adjacent factory; and the floor beams, steel struts, braces, etc., were also appreciably weakened. In order to make the necessary repairs to the steel, the whole deck system will have to be removed and replaced by all new material, with the exception of the paving blocks. Work under this contract is not yet completed.

*Chelsea North Bridge.*

A contract with Rendle Contracting and Dock Building Company to repair the draw pier was approved by the Mayor on July 3, 1934. These repairs were required on account of damage caused on April 21, 1934, by a tow boat jamming between the pier and the vessel in tow. Work was completed under this contract on October 4, 1934, at a cost of \$7,190.30. The bill of costs has been turned in for collection from the tow boat company handling the tow.

*Granite Avenue Bridge, Over Neponset River.*

A contract with the Codman Hill Construction Company, to strengthen and redeck the bridge, was approved by the Mayor of the City of Boston and the Chairman of the Board of Selectmen of Milton, on November 6, 1934. With the increasingly heavy loads passing over this bridge and the great speed at which they travel, it became necessary to appreciably strengthen the entire deck system in order to maintain satisfactorily a proper wearing surface on the roadway. The work under this contract has not yet been completed.

*Northern Avenue Bridge.*

On January 26, 1934, one of the links connecting the top chord of one of the center trusses with the draw

tower failed utterly and the adjacent links parted. With the failure of these members the draw was permanently put out of commission until comprehensive repairs or renewals are made. Due to the nature of the emergency the Boston Bridge Works was called in at once to block up the structure to prevent a possible complete collapse of the whole draw structure. On April 9, 1934, the Mayor approved an unadvertised contract with the Boston Bridge Works to cover the work of supporting the structure and for certain other miscellaneous work incident to a thorough inspection of the draw and fixed spans. Work under this contract was completed June 26, 1934, at a cost of \$14,533.72.

On September 27, 1934, a contract with M. F. Gaddis was approved by the Mayor for repairing the fixed spans and the draw. This work, carried on as a P. W. A. project, was decided on only after lengthy consideration of the problem from various angles especially with regard to the advisability of removing the present structure and building a new bridge from abutment to abutment with a different type of draw. The consultants, J. R. Worcester & Co., retained by the city finally decided on the repairs program as called for in the contract entered into with M. F. Gaddis. Under the terms of the contract the work will be completed on June 27, 1935.

#### *Summer Street Draw Bridge, over Fort Point Channel.*

A contract with Eugene Riccardelli to clean and paint the draw span, was approved by the Mayor October 27, 1934. All steel work was painted which could be reached without removing any of the wooden deck and sub-structures. Work under this contract was completed on November 15, 1934, at a cost of \$2,150. Under the terms of the contract, the city furnished the paint, but the contractor furnished all labor and temporary structures to complete the contract.

#### *Day Labor Force.*

The day labor force patched sheathing and headers on Meridian Street Bridge; placed new sidewalks on Blue Hill Avenue Bridge; patched sidewalks and headers on Chelsea North Bridge; repaired drawhouse and fences at Warren Bridge; patched sheathing and decking of Boston Street Bridge; patched sheathing and

placed new headers at Albany Street Bridge; patched sheathing at Broadway, Charlestown and other bridges; cleaned and painted insides and outsides of drawhouses; repaired piers; painted fences and gates; repaired steps and platforms; repaired deck and timber under paving at Chelsea North Bridge; rebuilt one side of Bennington Street Bridge and painted and cleaned girder tops; rebuilt bulkhead, upstream side, Dorchester Avenue Bridge; repaired damage caused by fire at Summer Street Bridge and repaired shelter houses and built new controller house; removed city equipment from Northern Avenue Bridge preparatory to turning bridge over to contractor and removed old walings, etc., did general carpenter work, painting and made mechanical repairs; also removed snow and ice from surfaces of bridges.

*Miscellaneous.*

Aside from the purely divisional activities there was an appreciable amount of time and effort spent in other departmental work and work outside of the department itself. It should be noted in every case that work was deemed by the commissioner to be of an emergency nature that required immediate attention of the personnel of this division. Some of these items follow:

*Highway Division — Atlantic Avenue Sea Wall and Bulkhead.*

Owing to a settlement of the sea wall, accompanied by a sagging of the street pavement and sidewalk between India and Central Wharves, caused in a large measure by the warming up of the engines of the large vessels that use this dock, it was necessary that local repairs be made at once. On June 28, 1934, a contract with A. Orlando, Inc., was approved by the Mayor for repairing the wall where damaged, extending the bulkhead, rebuilding the sidewalk and making other incidental repairs. Work was completed on this contract on September 16, 1934, at a cost of \$13,090.60. Considering the condition of the structure as uncovered at this time it is evident that in the relatively near future the entire length of this sea wall and bulkhead must be renewed or replaced with an entirely new system.

*Sanitary Division — Fort Hill Wharf Disposal Station.*

A contract with Maurice M. Devine, Inc., to make repairs to the station and its adjacent structures, was approved by the Mayor on July 31, 1934. This work, carried on for the Sanitary Division, is a routine repair of sheathing, decking, curbing, timber and piling. Work under this contract was completed October 3, 1934, at a cost of \$6,952.35.

*Institutions Department — Long Island.*

A contract with Rendle Contracting and Dock Building Company was approved by the Mayor on June 28, 1934, to make certain repairs to the Front Wharf. This work, done for the Institutions Department, was to make repairs to the wharf piling, timber and planking necessitated by the normal aging and rotting of the existing installation. Work under this contract was completed on October 10, 1934, at a cost of \$4,419.80.

## FERRY SERVICE.

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The following ferryboats are in commission:

Name.	When Built.	Length.	Gross Tons.
Lieutenant Flaherty.....	1921	174 ft.	755
Ralph J. Palumbo.....	1921	174 "	727
Charles C. Donoghue.....	1926	174 " 4 in.	756.77
Daniel A. MacCormack.....	1926	174 " 4 "	756.77
General Sumner.....	1930	174 " 4 "	779

All these boats are of the propeller type and are all steel boats.

The work of this service for the year consisted entirely of emergency work, with no major repairs and no emergency work of any magnitude.

### FERRYBOAT "CHARLES C. DONOGHUE."

A contract with the Quincy Dry Dock and Yacht Corporation for making repairs to the hull, etc., all incidental to the required annual inspection of the vessel by the United States Steamboat Inspection Service, was approved by the Mayor on March 9, 1934. The work covered by this contract was for purely routine repairs and renewals and for painting. The work was completed on March 26, 1934, at a cost of \$2,717.50.

### FERRYBOAT "DANIEL A. MACCORMACK."

A contract with the Quincy Dry Dock and Yacht Corporation to make repairs to the hull, etc., was approved by the Mayor on August 23, 1934. In addition to the routine repairs and renewals incidental to the required annual inspection by the United States Steamboat Inspection Service was the reboring of one high and two low pressure cylinders and the reboring of two high pressure valve cages. Work under this contract was completed on October 3, 1934, at a cost of \$5,076.15.

### FERRYBOAT "GENERAL SUMNER."

A contract with the Quincy Dry Dock and Yacht Corporation, for making repairs to the hull, etc., all essentially as noted above under ferryboat "Charles C.

Donoghue" was approved by the Mayor on May 21, 1934. The work was completed on July 2, 1934, at a cost of \$3,508.45.

#### PIER WORK.

A contract with the Roy B. Rendle & Co., Inc., to make certain repairs and removals to the middle pier, South Ferry, Boston, was approved by the Mayor on July 3, 1934. The repairs and renewals were necessary to make good the normal breaking down of the wooden structures. Work under this contract was completed on August 3, 1934, at a cost of \$2,675.25.

#### *Wharf — North Ferry — Boston.*

A contract with John F. Shea Company, Inc., for remodelling parts of the headhouse and ferry pier to adapt the site for Police Department use, was signed by the Police Commissioner on July 11, 1934. This work, accomplished for the Police Department, was to provide quarters for the floating equipment of the Harbor Master. The work called for under this contract was completed on September 12, 1934, at a cost of \$3,425.55.

#### DEPARTMENT FORCE.

During the year machinists, carpenters, painters, riggers and electricians, who make up the personnel of the Ferry Service, made all repairs possible to the plant to the extent of equipment at their disposal. This work was made up mainly of minor repairs to the machinery on the boats, repairs to ferry bridge machinery, ferry bridge roadways and headhouse repairs in general.

Yours respectfully,

L. BAYLES REILLY,  
*Division Engineer.*

## BRIDGE SERVICE.

## FINANCIAL STATEMENT, 1934.

Boston bridges . . . . .	\$356,681 82	
Boston and Cambridge bridges . . . . .	6,871 16	
		<u>\$363,552 98</u>

*Total Expenditures.*

From maintenance appropriation . . . . .	\$363,552 98	
From special appropriations . . . . .	117,745 74	
		<u>\$481,298 72</u>

## EXPENDITURES OF BOSTON BRIDGES.

## (1.) Administration:

## Salaries:

• Division engineer . . . . .	\$4,577 04	
Supervisor . . . . .	3,041 52	
Engineers and draughts-		
men . . . . .	30,840 86	
Clerk . . . . .	2,396 01	
Inspectors . . . . .	5,285 93	
Medical inspection . . . . .	90 00	
Foreman . . . . .	2,049 16	
Veterans' pension . . . . .	2,955 31	
Holiday . . . . .	2,851 03	
Vacations . . . . .	1,292 58	
Injured employees . . . . .	36 00	
Printing, postage, sta-		
tionery . . . . .	1,119 79	
Traveling expenses . . . . .	278 26	
Telephone . . . . .	13 87	
Engineers' supplies and		
instruments . . . . .	77 06	
Typewriter inspection . . . . .	18 00	
Office supplies . . . . .	179 30	
Office repairs, C. W. A. . . . .	433 86	
Miscellaneous . . . . .	122 04	
		<u>\$57,657 62</u>

## (2.) Yard Stockman:

Clerk and watchmen . . .	\$8,265 33
Traveling expenses . . .	324 25
Tools, new . . . . .	401 19
Tools, repaired . . . . .	429 43
Telephone . . . . .	265 51
Repairs in yards and build- ings . . . . .	280 80
Supplies . . . . .	470 47

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 \$10,436 98

## Stockroom:

Stock pur- chased . . .	\$10,255 65
Stock used . . .	9,392 07

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 Increase in stock . . . 863 58

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\$9,573 40

*Automobiles and Trucks.*

	Coupe B-6.	Auto B-8.	Auto B-9.	Auto B-10.	Truck B-11.	Truck B-12.	Truck B-13.	Truck B-14.	Auto B-15.	Auto B-16.	Total.
Cost, new.....									\$663 30	\$992 00	\$1,655 30
Chauffeurs' wages.....			\$1,381 70	\$1,365 69						168 30	2,915 69
Storage.....	\$72 00	\$99 00	81 00	90 00	\$96 00	\$126 00		\$126 00	9 00	18 00	717 00
Repairs.....	280 19	124 80	590 93	142 59	34 88	189 19	\$24 10	627 63	7 77	25 25	2,047 33
Supplies.....		0 92	14 58	7 57	1 75	4 66	7 44	18 57		5 05	60 54
Tires, tubes (new and repaired).....		20 00	8 00	10 00	5 00	18 30		7 00			68 30
Gasoline and oil.....	107 54	252 72	413 33	189 74	366 13	378 52	100 01	402 31	43 89	45 03	2,299 22
Registration.....			2 00		2 00	2 00		2 00	3 00		11 00
Equipment.....					5 75						5 75
Totals.....	\$459 73	\$497 44	\$2,491 54	\$1,805 59	\$511 51	\$718 67	\$131 55	\$1,183 51	\$726 96	\$1,253 63	\$9,780 13

*Tidewater Bridges.*

BRIDGES.	Drawtenders' Salaries.	Mechanics' Wages.	Materials.	Repair Bills.	Supplies.	Total.
Broadway.....	\$13,749 69	\$1,343 63	\$703 09	\$372 39	\$299 06	\$16,467 86
Charlestown.....	18,973 21	2,239 65	501 50	1,490 23	660 96	23,865 55
Chelsea North.....	16,262 01	3,217 85	854 05	1,340 60	1,007 33	22,681 84
Chelsea South.....	15,831 20	569 21	174 70	589 02	585 86	17,749 99
Chelsea Street.....	13,813 10	952 65	141 88	1,218 89	338 63	16,465 15
Congress Street.....	13,483 14	1,015 42	218 72	159 79	569 61	15,446 68
Dorchester Avenue.....	13,840 82	1,338 47	598 67	782 64	206 60	16,767 20
Dover Street.....	13,787 89	783 89	805 27	574 06	189 13	16,140 24
L Street.....	13,912 75	535 27	570 74	725 34	239 78	15,983 88
Malden.....	14,387 56	265 52	70 40	823 96	497 27	16,044 71
Meridian Street.....	14,484 16	2,148 16	3,071 05	1,847 96	346 39	21,897 72
Northern Avenue.....	9,659 73	1,593 16	439 97	2,028 13	905 56	14,626 55
Summer Street.....	14,410 43	3,406 07	3,272 11	3,873 13	408 93	25,370 67
Warren.....	14,257 86	4,188 23	701 76	1,086 52	428 92	20,663 29
Totals.....	\$200,853 55	\$23,597 18	\$12,123 91	\$16,912 66	\$6,684 03	\$260,171 33

*Repairs on Inland Bridges.*

BRIDGES.	Labor and Material.
Albany Street.....	\$300 29
Austin Street - Prison Point.....	7 48
Arlington Street.....	5 95
Babson Street.....	132 71
Beacon Street, over Boston & Albany Railroad.....	156 62
Bennington Street.....	5,206 94
Blakemore Street.....	1,487 31
Blue Hill Avenue.....	1,257 49
Boston Street.....	185 35
Boylston Street.....	810 82
Braddock Park-Fallon Street.....	302 61
Broadway, over Boston & Albany Railroad.....	133 14
Broadway, over New York, New Haven & Hartford Railroad.....	458 84
Brookline Avenue.....	43 45
Cambridge Street, over Boston & Albany Railroad.....	117 80
Cambridge Street, over Boston & Maine Railroad.....	31 03
Central Avenue.....	52 59
Chelsea Street Viaduct.....	2,568 57
Commercial Point.....	438 54
Cummins Highway.....	50 93
Dana Avenue.....	69 75
Dartmouth Street (rent).....	300 00
Dorchester Avenue, over New York, New Haven & Hartford Railroad.....	345 08
Fairmount Avenue.....	430 66
Grove Street (Footbridge).....	203 61
Granite Avenue.....	2 25
Longfellow.....	451 99
Hyde Park Avenue.....	59 24
Jones Avenue (Footbridge).....	141 50
Massachusetts Avenue, over New York, New Haven & Hartford Railroad,	133 15
Massachusetts Avenue, over Boston & Albany Railroad (now Edward E. Ginsberg) (new bridge).....	10 40
Milton Street.....	363 77
Milton Lower Mills.....	29 35
Norfolk Street.....	23 26
New Allen Street.....	910 72
Perkins Street (Footbridge).....	32 46
<i>Carried forward</i> .....	\$17,255 65

*Repairs on Inland Bridges.—Concluded.*

BRIDGES.	Labor and Material.
<i>Brought forward</i> .....	\$17,255 65
Public Landing, Northern Avenue.....	120 00
Southampton Street.....	1 28
West Fourth Street.....	1,038 73
West Rutland Square - Durham Street.....	83 39
	\$18,499 05
Cleaning bridges.....	285 66
Snow removal.....	814 63
Total.....	\$19,599 34

## SUMMARY.

Administration . . . . .	\$57,657 62
Yard and stockroom . . . . .	9,573 40
Automobiles, trucks and compressors . . . . .	9,780 13
Tidewater bridges . . . . .	260,171 33
Inland bridges . . . . .	19,599 34
Total . . . . .	<u>\$356,781 82</u>

## SPECIAL APPROPRIATIONS.

## BRIDGES REPAIRS, ETC.

BEACON STREET BRIDGE, OVER BOSTON & ALBANY RAILROAD.		
Repair bills . . . . .		\$831 60
BERKELEY STREET BRIDGE.		
Repairs . . . . .		954 75
BENNINGTON STREET BRIDGE.		
Groesser & Schlagher . . . . .	\$1,108 61	
Material, asphalt and plank . . . . .	712 32	
Advertising . . . . .	9 50	
		<u>1,830 43</u>
BLAKEMORE STREET BRIDGE.		
Advertising . . . . .	\$13 55	
Material . . . . .	19 70	
C. W. A. . . . .	124 62	
		<u>157 87</u>
BOYLSTON STREET BRIDGE.		
Maurice M. Devine . . . . .	\$345 00	
Remove loose material . . . . .	878 27	
		<u>1,223 27</u>
BROADWAY BRIDGE.		
C. W. A. . . . .		93 87
BROOKLINE AVENUE BRIDGE.		
Repairs . . . . .		925 65
CAMBRIDGE STREET BRIDGE, OVER BOSTON & ALBANY RAILROAD.		
Repair bills . . . . .		1,519 65
CHARLESTOWN BRIDGE.		
Material, paint . . . . .	\$188 10	
Advertising . . . . .	27 50	
Renew water pipe . . . . .	982 00	
		<u>1,197 60</u>
CHELSEA NORTH BRIDGE.		
Rendle Contracting Dry Dock Company . . . . .	\$7,190 30	
Service of diver . . . . .	720 00	
Material . . . . .	624 16	
Advertising . . . . .	93 15	
Repair bills . . . . .	2,499 54	
		<u>11,127 15</u>
Carried forward . . . . .		<u>\$19,861 84</u>

## PUBLIC WORKS DEPARTMENT.

29

<i>Brought forward</i>			\$19,861 84
CHELSEA STREET BRIDGE.			
C. W. A.			50 40
CONGRESS STREET BRIDGE.			
Repairs, paving			456 19
CLARENDON STREET BRIDGE.			
Repairs			1,598 72
CHELSEA VIADUCT.			
Trucking, C. W. A.		\$739 63	
Incidentals, C. W. A.		124 62	
			864 25
COLUMBUS AVENUE BRIDGE.			
Repairs, loose materials			962 97
DORCHESTER AVENUE BRIDGE.			
A. R. Doyle, Inc.		\$992 15	
A. Orlando, Inc.		4,360 31	
Repair bills		1,933 95	
			7,286 41
DOVER STREET BRIDGE.			
Repair drawtenders' house			965 00
LONGFELLOW BRIDGE.			
Analysis of paint		\$35 00	
C. W. A.		93 87	
			128 87
MASSACHUSETTS AVENUE BRIDGE.			
Repairs			975 15
MASSACHUSETTS AVENUE BRIDGE, OVER NEW YORK, NEW HAVEN & HARTFORD RAILROAD.			
Repairs			225 00
MILTON LOWER MILLS BRIDGE.			
C. J. Maney, Inc.		\$3,914 16	
Engineering		170 14	
			4,084 30
MERIDIAN STREET BRIDGE.			
C. W. A.			651 57
NORTHERN AVENUE BRIDGE.			
The Boston Bridge Works, Inc.		\$14,833 72	
J. R. Worcester Company		1,424 70	
New air compressor		919 45	
Engineering		46 11	
			17,223 98
SUMMER STREET BRIDGE.			
The Boston Bridge Works, Inc.		\$3,854 91	
W. H. Ellis & Son Company		4,474 95	
Sterns Perry & Smith Company		1,173 60	
E. Recardella		1,827 50	
<i>Carried forward</i>			\$55,334 29

<i>Brought forward</i>		\$55,334 29
Advertising . . . . .	\$ 18 50	
Material . . . . .	613 80	
Incidentals . . . . .	93 88	
Repair bills . . . . .	828 68	
	<hr/>	12,885 82

SUMMER STREET BRIDGE, OVER NEW YORK, NEW HAVEN  
& HARTFORD RAILROAD.

Repair paving . . . . .	452 60
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WARREN BRIDGE.

W. H. Ellis & Son Company . . . . .	\$917 95	
Paving repairs . . . . .	807 34	
Incidentals . . . . .	89 68	
	<hr/>	1,814 97

WEST RUTLAND SQUARE BRIDGE.

Painting . . . . .	300 00
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WEST FOURTH STREET BRIDGE.

Repair bills . . . . .	390 60
OFFICE . . . . .	14 81

	\$71,193 09
Boston and Cambridge Bridges . . . . .	459 82
	<hr/>
	<u>\$71,652 91</u>

CHELSEA NORTH BRIDGE.

*Repairs and Strengthening.*

Advertising . . . . .	\$38 50	
Test piles . . . . .	592 61	
Specifications . . . . .	68 75	
License . . . . .	1 00	
	<hr/>	\$700 86

NORTHERN AVENUE BRIDGE RECONSTRUCTION.

*Chapter 366, Acts 1933, as Amended.*

M. F. Gaddis . . . . .	\$37,668 48	
J. R. Worcester & Co. . . . .	2,611 98	
Advertising . . . . .	173 40	
Specifications . . . . .	79 50	
Office equipment . . . . .	77 14	
Electric meter . . . . .	5 00	
Telephone . . . . .	7 14	
Analysis of paint . . . . .	65 00	
New water pipe . . . . .	758 64	
Consulting engineer services . . . . .	2,269 75	
Engineering . . . . .	1,691 94	
	<hr/>	\$45,397 97

## Expenditures from Special Appropriations, 1934.

	Balance from 1933.	Total Credits, Including Balances Carried Over and Transfers.	Expenditures During Year 1934.	Balances Unexpended December 31, 1934.
Bridges repairs, etc.....	\$17,210 93	\$92,210 93	\$71,652 91	\$20,558 02
Chelsea North Bridge, repairs and strengthening.....		84,375 00	700 86	83,674 14
Northern Avenue Bridge Re- construction, chapter 366, Acts 1933.....		200,000 00	45,391 97	154,608 03
Totals.....	\$17,210 93	\$376,585 93	\$117,745 74	\$258,840 19

## Draw Openings, 1934.

BRIDGES.	STEAMERS.			SAILING VESSELS.			TUGS.			BARGES.			ALL OTHERS.			TOTAL NUMBER OF VESSELS.				Total Number of Carries.	Total Number of Openings.
	Day.		Total.	Day.		Total.	Day.		Total.	Day.		Total.	Day.		Total.	Day.		Total.			
	Night.			Night.			Night.			Night.			Night.			Night.					
Broadway .....	9	13	22	9	1	10	577	88	665	189	36	225	136	30	166	920	168	1,088	249	622	
Charlestown .....	3	2	5	62	12	74	756	252	1,008	376	224	600	364	143	507	1,561	633	2,194	551	810	
Chelsea North .....	1,082	363	1,445	26	2	28	7,129	1,957	9,086	1,529	812	2,341	851	202	1,053	10,617	3,336	13,953	2,056	5,464	
Chelsea South .....	36	5	41	17	.....	17	2,826	124	2,950	102	7	109	1,416	53	1,469	4,397	189	4,586	1,202	1,486	
Chelsea Street .....	143	54	197	.....	.....	.....	1,621	890	2,511	358	206	564	436	259	695	2,558	1,409	3,967	602	2,225	
Congress Street .....	132	23	155	8	.....	8	1,477	166	1,643	341	69	416	714	95	809	2,678	353	3,031	443	1,794	
Dorchester Avenue .....	8	10	18	9	.....	9	763	84	847	172	31	203	332	18	350	1,284	143	1,427	258	794	
Dover Street .....	4	14	18	9	.....	9	721	92	813	179	32	211	285	12	297	1,198	150	1,348	252	717	
L Street 1 .....	.....	.....	.....	248	26	274	166	4	170	693	53	746	763	131	894	1,870	214	2,084	360	1,841	
Malden .....	112	44	156	4	.....	4	760	203	963	597	313	910	256	130	386	1,729	690	2,419	663	1,600	
Meridian Street .....	795	278	1,073	52	3	55	5,007	1,903	6,910	1,534	907	2,441	2,227	570	2,797	9,615	3,661	13,276	2,081	7,399	
Northern Avenue 2 .....	14	7	21	.....	.....	.....	202	21	233	38	6	44	64	16	80	318	60	378	51	173	
Summer Street .....	130	15	145	14	1	15	1,515	154	1,669	350	61	411	363	33	396	2,372	264	2,636	486	1,520	
Warren .....	75	54	129	38	5	43	782	208	990	340	122	462	1,070	274	1,281	2,242	663	2,905	524	1,730	
Totals .....	2,543	882	3,425	496	50	546	24,302	6,156	30,458	6,804	2,879	9,683	9,214	1,966	11,180	43,359	11,933	55,292	9,778	28,175	

<sup>1</sup> Now Summer Street, over Reserved Channel.<sup>2</sup> Closed for repairs.

## GRANITE AVENUE BRIDGE.\*

Drawtenders' salaries . . . . .	\$2,561 91
Material . . . . .	214 95
Repairs . . . . .	276 81
Advertising . . . . .	15 00
Supplies . . . . .	52 29
	<u>\$3,120 96</u>

\* Maintained jointly by town of Milton and County of Suffolk.

	STEAMERS.			SAILING VESSELS.			TUGS.			BARGES.			ALL OTHERS.			TOTAL NUMBER OF VESSELS.			Total Number of Caroes.	Total Number of Openings.
	Day.	Night.	Total.	Day.	Night.	Total.	Day.	Night.	Total.	Day.	Night.	Total.	Day.	Night.	Total.	Day.	Night.	Total.		
Openings.....	2	.....	2	4	1	5	220	5	225	75	4	79	99	58	157	400	68	468	40	335

## FERRY SERVICE.

### FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31, 1934.

#### 1. Receipts.

Total cash receipts during the year . . . . .	\$52,242 01
Cash in hands of tollmen at beginning of year . . . . .	200 00
	<u>\$52,442 01</u>
Cash paid over to City Collector . . . . .	\$51,321 50
Cash in hands of tollmen December 31, 1934 . . . . .	\$200 00
Cash in hands of cashier December 31, 1934 . . . . .	920 51
	<u>1,120 51</u>
	<u>\$52,442 01</u>

#### 2. Appropriations and Expenditures.

Received from annual appropriations for Ferry Service . . . . .	\$334,380 94
Unexpended balances from special appropriations, January 1, 1934, . . . . .	\$58,435 84
Appropriations from taxes for ferry improvements . . . . .	20,000 00
	<u>\$78,435 84</u>
Expenditures . . . . .	\$2,698 90
Transferred to Ferry Service . . . . .	8,472 94
	<u>11,171 84</u>
Unexpended balances of special appropriations, December 31, 1934 . . . . .	<u>\$67,264 00</u>

#### 3. Result of Operation for the Year.

Receipts for the year (net income) . . . . .	\$52,242 01
Ordinary expenses (maintenance appropriation) . . . . .	\$334,380 94
Interest paid on Ferry debt . . . . .	23,862 50
Depreciation on Ferryboats . . . . .	81,433 79
Decrease in value of machinery and tools . . . . .	291 74
Decrease in value of Ferryboats on account of sale of Ferryboat "John H. Sullivan"† . . . . .	21,000 00
	<u>460,968 97</u>
Net outgo for the year . . . . .	460,968 97
Net loss for the year . . . . .	<u>* \$408,726 96</u>

\* Does not include expenditures for special appropriations.

† Includes \$6,273.90 credited to sale of city property.

## 4. Balance Sheet.

End of Fiscal Year, December 31, 1934.

ASSETS.		LIABILITIES.	
AVAILABLE ASSETS:		CURRENT LIABILITIES:	
Cash in hands of tollmen at close of year.....	\$200 00	None.	
Cash in hands of cashier at close of year.....	920 51		
INVENTORY OF SUPPLIES, VIZ.:			
Supplies for Maintenance.....	13,526 84		
Rents receivable.....	2,422 87		
Damages receivable.....	325 00		
Total available assets.....	\$17,395 22		
CONTINGENT ASSETS:		CONTINGENT LIABILITIES:	
City Treasurer.....	67,264 00	Appropriations account.....	\$67,264 00
FIXED ASSETS:		FIXED LIABILITIES:	
Real estate, land and buildings.....	1610,100 00	Capital of the city invested in the ferries, viz.:	
Ferryboats <sup>1</sup> .....	847,362 05	Total expenditures of all kinds for seventy-	
Machinery, tools, etc.....	2,625 68	seven years, including interest on ferry	
Total tangible assets.....	<sup>2</sup> \$1,544,746 95	debt.....	\$25,898,667 89
Deficiency or loss by operation and maintenance	15,619,721 88	Less total receipts.....	8,801,463 06
of the ferries for seventy-six years to date.....			17,097,204 83
	\$17,164,468 83		\$17,164,468 83

<sup>1</sup> Original purchase.

New buildings, drops, slips, cost to 1913..... \$276,375 00  
 Land, Lincoln's Wharf, cost to 1887..... 607,523 64  
 Land, Battery Wharf, cost to 1893..... 5,562 52  
 10,000 00

New drops, both ferries, cost from 1923 to  
 December 31, 1934..... \$899,461 16  
 886,648 44

\$1,786,109 60<sup>2</sup> Assessors' figures.

<sup>3</sup> Total cost to date, per ferry books..... \$2,529,820 50  
 Less boats sold, depreciated or destroyed..... 1,682,458 45

\$847,362 05

## Balance Sheet for Year 1934.

*Assets.*

Cash in hands of cashier . . . . .	\$920 51
Cash, tollmen's capital . . . . .	200 00
Rents receivable . . . . .	2,422 87
Supplies in stock . . . . .	13,526 84
City Treasurer (balance of appropriation) . . . . .	67,264 00
Ferryboats (less depreciation) . . . . .	847,362 05
Machinery and tools . . . . .	2,625 68
Real estate, land and buildings (assessors' valuation) . . . . .	610,100 00
Damage receivable . . . . .	325 00
Total tangible assets . . . . .	<u>\$1,544,746 95</u>
Cost of avenues, etc., East Boston (previous to 1871) . . . . .	<sup>1</sup> \$315,815 68
Deficiency of assets (loss) . . . . .	15,303,906 20
Totals . . . . .	<u>\$17,164,468 83</u>

*Liabilities.*

Capital invested by City of Boston to date . . . . .	\$17,097,204 83
Appropriations account (credit balances) . . . . .	67,264 00
Total liabilities . . . . .	<u>\$17,164,468 83</u>

*Details of Capital Invested by the City of Boston.*

Total expenditures to date per ferry books . . . . .	\$25,567,269 04
Interest of debt for the year (per City Auditor's reports), . . . . .	23,862 50
Interest, previous years, etc. (net debits, per City Auditor's reports) . . . . .	307,536 35
Total expenditures . . . . .	<u>\$25,898,667 89</u>
Deduct total receipts paid to City Collector . . . . .	8,801,463 06
Excess expenditures, capital . . . . .	<u>\$17,097,204 83</u>

## COMPARISON OF RECEIPTS, APPROPRIATIONS AND EXPENDITURES.

*Receipts.*

From foot passengers (tollmen) . . . . .	\$13,633 57
From foot passengers (office sales) . . . . .	106 10
From extra passengers on teams (gatemen) . . . . .	294 14
From team tickets (office sales) . . . . .	† 3,170 40
From strip team tickets (tollmen) . . . . .	7,448 80
From cash for teams (gatemen) . . . . .	27,257 50
Total from rates . . . . .	<u>\$51,910 51</u>
From rents . . . . .	80 00
From other sources . . . . .	251 50
Total ordinary receipts . . . . .	<u>\$52,242 01</u>

<sup>1</sup> Included in deficiency of assets in Balance Sheet.

† Includes sales of coupons to city departments.

*Expenditures (Ordinary).*

## Office:

Division engineer's salary (part)	\$1,327 43
General foreman and cashier	1,727 27
Clerk-assistant cashier	1,409 24
Retired veterans' pensions	6,429 25
Retired employees' pensions	788 00
Medical inspector (part)	90 00
Stationery	168 60
Printing	729 25
Telephones	337 52
Advertising	51 00
Car fares	331 46
Postage	4 50
Premiums, surety companies	185 00

Total, office expenses	<u>\$13,578 52</u>
------------------------	--------------------

## Ferryboats and landings:

Employees (wages)	\$226,311 85
Fuel	45,810 35
Teaming, weighing coal, etc.	2,814 75
Supplies	9,800 09
Gas	63 80
Oil	1,517 78
Electric light	3,094 77
Electric power	1,348 00
Repairs of boats	17,481 30
Repairs of buildings, drops and piers	5,512 15
Furnishings	32 90
Other expenditures	7,014 68

Total	<u>\$334,380 94</u>
-------	---------------------

## RECEIPTS, APPROPRIATIONS AND EXPENDITURES.

*Expenditures from Special Appropriations.*

Ferry improvements, etc.	2,698 90
--------------------------	----------

Total expenditures, regular and special	<u>\$337,079 84</u>
---	---------------------

Balance in treasury unexpended	<u>\$67,264 00</u>
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*Appropriations.*

Regular annual appropriations	<u>\$334,380 94</u>
-------------------------------	---------------------

## Total Expenditures upon Ferries Since 1858.

Expenditures for avenues, paving, interest, etc., previous to the purchase of the ferries by the city	\$444,101 30
Purchase of the ferries, April, 1870	276,375 00
Expenditures for ferryboats since April, 1870,	2,530,009 51
Expenditures for new buildings, piers, drops, etc.	1,491,468 89
Expenditures for tools and fixtures (prior to 1910)	14,752 46

Carried forward	<u>\$4,756,707 16</u>
-----------------	-----------------------

<i>Brought forward</i> . . . . .	\$4,756,707 16
Expenditures for land for Lincoln's Wharf in 1887 . . . . .	5,562 52
Expenditures for land for Battery Wharf in 1893 . . . . .	10,000 00
Total expenditures on capital account . . . . .	\$4,772,269 68
Expenditures for repairs of all kinds . . . . .	2,857,514 01
Expenditures for fuel . . . . .	3,041,247 25
Expenditures for salaries and wages . . . . .	11,937,858 75
Expenditures for all other purposes . . . . .	3,289,778 20
	<u>\$25,898,667 89</u>

#### Total Receipts from Ferries Since 1858-59.

Receipts from rents, etc., previous to purchase of ferries . . . . .	\$29,588 56
Receipts from ferry tolls since purchase of ferries . . . . .	8,464,550 84
Receipts from rents since purchase of ferries, . . . . .	73,142 40
Receipts from sale of ferryboats . . . . .	168,004 57
Receipts from all other sources, per ferry books . . . . .	36,562 35
Receipts from all other sources, additional, per City Auditor . . . . .	30,734 85
Total receipts from all sources . . . . .	\$8,802,583 57
Less amount with tollmen as capital . . . . . \$200 00	
Less amount in hands of cashier at close of year . . . . . 920 51	
	<u>1,120 51</u>
Total receipts, Auditor's report . . . . .	<u>\$8,801,463 06</u>

#### Regular Annual (Ordinary) and Special Appropriations (Extraordinary) of the Ferry Service for the Year Ending December 31, 1933.

Appropriations (regular) for the year ending December 31, 1933 . . . . .	<u>\$334,380 94</u>
Amount of expenditures (regular) for the year . . . . .	<u>\$334,380 94</u>

#### SPECIAL APPROPRIATIONS.

East Boston Ferry, two additional boats and other permanent improvements:

Unexpended balance January 1, 1934 . . . . .	\$53,889 42
Unexpended balance December 31, 1934 . . . . .	<u>53,889 42</u>

## Ferry Improvements:

Unexpended balance January 1, 1934 . . . . .	\$4,546 42
Appropriations from taxes . . . . .	20,000 00

Total . . . . .	\$24,546 42
-----------------	-------------

Expenditures for year 1934 . . . . .	\$2,698 90
--------------------------------------	------------

Transferred to Ferry Service . . . . .	8,472 94
	<u>\$11,171 84</u>

Unexpended balance December 31, 1934 . . . . .	<u>\$13,374 58</u>
--	--------------------

## Expenditures for year made up as follows:

## Amount paid to Skinner Sherman, Inc.:

To one day of inspector's time witnessing shipment of creosoted pavement slabs for ferry drops . . . . .	\$23 65
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## Amount paid to Roy B. Rendle Company:

Work done and material furnished on removing and replacing head of middle pier and other repairs South Ferry, East Boston . . . . .	2,675 25
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	<u>\$2,698 90</u>
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## RECEIPTS OF SOUTH FERRY.

FROM TOLLMEN.	From Foot Passengers.	From Tickets.	Totals.
Boston side.....	\$6,913 71	\$4,572 00	\$11,485 71
East Boston side.....	6,719 86	2,876 80	9,596 66
Totals.....	\$13,633 57	\$7,448 80	\$21,082 37

From tollmen . . . . .	\$21,082 37
------------------------	-------------

## From gatemen:

29,414 foot passengers at 1 cent,	\$294 14
-----------------------------------	----------

Cash for teams . . . . .	27,257 50
--------------------------	-----------

	<u>27,551 64</u>
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Total at South Ferry . . . . .	\$48,634 01
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Tickets paid for at ferry office . . . . .	3,106 50
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Tickets sold and paid for through City Col- tor's office . . . . .	170 00
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Total from rates . . . . .	\$51,910 51
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Rents for the year . . . . .	80 00
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Headhouse privileges . . . . .	100 00
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Care of public telephone booths . . . . .	48 00
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Commission on public telephones . . . . .	68 50
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Sales of miscellaneous junk . . . . .	35 00
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Total receipts for the year . . . . .	<u>\$52,242 01</u>
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TRAVEL ON THE SOUTH FERRY FROM JANUARY 1, 1934,  
TO DECEMBER 31, 1934, INCLUSIVE.

Foot passengers at 1 cent each . . . . .	1,392,771
Foot passengers by tickets . . . . .	11,905
Total foot passengers . . . . .	<u>1,404,676</u>
Handcart, or wheelbarrow and man . . . . .	5 cents
Horse and rider . . . . .	5 cents
Horse and cattle, each with attendant . . . . .	5 cents
One or two horse vehicle with driver . . . . .	5 cents
Motorcycle with driver . . . . .	5 cents
Trailer . . . . .	10 cents
Three or four horse vehicle with driver . . . . .	10 cents
Passenger automobile with driver and one passenger, . . . . .	10 cents
Passenger automobile with driver and more than one passenger . . . . .	15 cents
Motor truck, six tons or less, with driver . . . . .	15 cents
Motor truck, over six tons, with driver . . . . .	20 cents
Auto bus with driver . . . . .	20 cents
Auto bus with driver and passengers . . . . .	30 cents
	<u>379,472</u>

Motor Vehicle Traffic (Reports of Captains).

January 1, 1934, to December 31, 1934.

Passenger cars . . . . .	273,591
Trucks . . . . .	99,220
Totals . . . . .	<u>* 372,811</u>

Changes in rates of tolls on city ferryboats were made during the year 1930. The first rate, effective January 1, was superseded on April 1, 1930, by the rates which are now effective, and are as follows:

PASSENGERS.

On and after April 1, 1930, the tolls on the East Boston Ferries will be as follows:

Foot passengers . . . . .	1 cent.
---------------------------	---------

VEHICLES.

One or two horse vehicle with driver . . . . .	5 cents.
Motorcycle with driver . . . . .	5 cents.
Trailer . . . . .	10 cents.
Three or four horse vehicle with driver . . . . .	10 cents.
Passenger automobile with driver and one passenger, . . . . .	10 cents.
Passenger automobile with driver and more than one passenger . . . . .	15 cents.

\* Including 10,908 free.

Motor truck, six tons or less, with driver . . . . .	15 cents.
Motor truck, over six tons, with driver . . . . .	20 cents.
Auto bus with driver . . . . .	20 cents.
Auto bus with driver and passengers . . . . .	30 cents.

## MISCELLANEOUS.

Hand cart, or wheelbarrow and man . . . . .	5 cents.
Horse and rider . . . . .	5 cents.
Horse and cattle, each with attendant . . . . .	5 cents.

## TICKETS FOR VEHICLES.

Tickets in books of ten to be sold at a reduction of 20 per cent.

## FUNERAL PROCESSIONS.

Funeral processions pass free of tolls.

## SUMNER TRAFFIC TUNNEL.

*Financial Statement for the Year Beginning June 30, 1934,  
and Ending December 31, 1934.*

Total cash receipts . . . . .	* \$274,658 13
Cash turned over to City Collector . . . . .	\$270,000 00
Cash in hands of cashier December 31, 1934 . . . . .	4,658 13
	<u>\$274,658 13</u>

## Appropriations and Expenditures.

Received from annual appropriations for Sumner Traffic Tunnel . . . . .	\$233,286 78
Ordinary expenditures (Maintenance) . . . . .	† \$222,364 68
Unexpended balance December 31, 1934 . . . . .	10,922 10
	<u>\$233,286 78</u>

\* Includes cash in hands of cashier at close of Collector's Office, December 31, 1934.

† Does not include interest on Tunnel debt.

APPENDIX B.

REPORT OF THE DIVISION ENGINEER OF THE  
HIGHWAY DIVISION.

Boston, January 2, 1935.

MR. CHRISTOPHER J. CARVEN,  
*Commissioner of Public Works.*

DEAR SIR,—I respectfully submit the following report of the operation and expenditures of the Highway Division which consists of the Street Lighting and Paving Service for the year ending December 31, 1934.

The maintenance expenditures of the Division for the year are as follows:

Lighting Service . . . . .	\$990,322 41
Paving Service . . . . .	1,015,212 53
Total . . . . .	\$2,005,554 94

Under the loan and grant of the Federal Public Works Administration for reconstruction of streets the sum of \$360,022.45 was expended on the following-named streets:

Alford street; Ashmont street; Southampton street; Adams street; Old Colony avenue, Dorchester avenue to Dorchester street and Dorchester street to Mount Vernon street; Woodrow avenue; La Grange street, Centre street to Vermont street.

From the "Highways, Making of," loans there was expended \$159,454.60.

The list of streets done under this appropriation consisted of nineteen new streets. The construction of seven of these streets was carried over from 1933 and finished in 1934.

From the Appropriation for "Reconstruction of Streets" the expenditure was \$180,665.14. One contract was awarded for repairing streets having an asphalt or bitulithic pavement on which the maintenance guarantee had expired. No contract was awarded in the first district as repairs were made by the Paving Forces with material from the Paving Service Plant in Brighton.

Under this appropriation there was constructed a heavy retaining wall in Adams street, Dorchester, in front of the Cedar Grove Cemetery. Six streets in various sections had new construction of artificial stone sidewalks.

In addition to the work of construction done by contract and special appropriation the Paving Service Forces were employed in the maintenance of the public streets throughout the city, resurfacing macadam roadways, repairing old granite paved streets and the patching of old street surfaces, whatever the character, with gravel, brick and artificial sidewalk repairs.

In nearly all the suburban districts all street surface and gutter cleaning was done by the Paving District Forces. Details of men sent from the Public Welfare Department assisted in the regular work of the Division.

Since November, 1933, a large amount of maintenance work has been accomplished by the Federal Emergency Relief Administration. The importance and size of this work cannot be embodied in the annual report of the Highway Division. It is so extensive that reference can only be made to the fact that it is shown very thoroughly and in complete detail in the publication of the *City Record*, volume 26, No. 52, issued Saturday, December 29, 1934.

#### LIGHTING SERVICE.

The opening of the East Boston Vehicular Tunnel required new street lighting installations in and about the street widenings leading from the Haymarket Square Traffic Circle to the tunnel entrance.

In Haymarket square four new arc lamps were installed and seven arc lamps were relocated; on Merrimac street, two new lamps were installed and on Cross street, nine arc lamps were installed.

In the Prado opposite Old Christ's Church and St. Stephen's Church, six new mazda lamps of 600 candle power on the new type of concrete post were installed. Similar installation to the number of thirteen lamps were set up in Woodrow avenue, Dorchester, in connection with the street reconstruction made by the Public Works Administration.

Thirteen new mazda lamps, 600 candle power, were set up in Melville avenue, Dorchester.

A considerable number of new 80 candle power lamps were installed throughout the several suburban districts of the city.

Respectfully,

JOSHUA ATWOOD,  
*Division Engineer.*

## HIGHWAY DIVISION — PAVING SERVICE.

## Work Done by Contract in 1934.

	Old Work.	New Work.	Total Old and New Work.
Edgestone set on gravel foundation.....	20,610 linear feet.	19,232 linear feet.	39,842 linear feet.
Edgestone set on crushed stone foundation.....	593 " "	13,679 " "	14,272 " "
Concrete base laid.....	2,088 square yards.	153,006 square yards.	155,094 square yards.
Granite blocks relaid, gravel joints.....	8 " "	.....	8 " "
Recut granite blocks, recut and laid grout joints.....	.....	13,031 square yards.	13,031 " "
Recut granite blocks, hauled and laid, grout joints.....	.....	598 " "	598 " "
Old granite blocks laid, grout joints.....	13,908 square yards.	244 " "	14,152 " "
Second-hand granite blocks, hauled and laid, grout joints.....	.....	36 " "	36 " "
Asphalt and binder laid.....	.....	82,751 " "	82,751 " "
Bitulithic pavement laid.....	34 square yards.	45,923 " "	45,957 " "
Brick block gutter, grout joints.....	180 " "	.....	180 " "
Bituminous patching contract:			
1. Bituminous wearing surface and binder.....	5,277 " "	4,770 square yards.	10,047 " "
2. Bituminous concrete wearing surface.....	16,583 " "	.....	16,583 " "
3. Bituminous surface patching.....	11,389 " "	.....	11,038 " "
5. Concrete base.....	106 " "	162 square yards.	268 " "
6. Covers reset.....	2 " "	.....	2 " "
Bituminous macadam.....	.....	5,243 square yards.	5,243 " "

Bituminous concrete .....	4,279	"	4,279	"	"
Extra binder .....	23	tons,	23	tons,	"
Artificial stone sidewalks laid .....	2,085	square yards,	37,675	square yards,	39,760 square yards,
One-course concrete sidewalks laid .....	5,752	"	5,752	"	"
Brick sidewalks laid .....	294	"	294	"	"
Gravel sidewalks graded .....	4,631	square yards,	4,631	square yards,	"
Asphalt concrete sidewalk laid .....	1,466	"	1,466	"	"
Earth excavation .....	26,436	cubic yards,	26,436	cubic yards,	26,436 cubic yards,
Rock excavation .....	373	"	373	"	"
Filling furnished .....	115	"	115	"	"
Gravel foundation (6 inches) .....	5,306	square yards,	5,306	square yards,	5,306 square yards,
Crushed stone furnished .....	412	tons,	412	tons,	412 tons,
Concrete base removed .....	2,760	square yards,	2,760	square yards,	2,760 square yards,
Loam graded and seeded .....	1,278	"	1,278	"	"
Covers reset .....	777		777		
Sign posts set or reset .....	37		37		
Iron fence erected .....	587	linear feet,	587	linear feet,	587 linear feet,
Chain link fence erected .....	228	"	228	"	"
Wooden fence erected .....	1,778	"	1,778	"	"
Ground water drain laid .....	9,841	"	9,841	"	"
Dry wells constructed .....	10		10		
Edgestone foundation at driveways placed .....	2,818	linear feet,	2,818	linear feet,	2,818 linear feet,

## Work Done by Contract in 1934.—Concluded.

	Old Work.	New Work.	Total Old and New Work.
Extra concrete furnished.....	.....	227 cubic yards.	227 cubic yards.
Old granite wall removed.....	.....	27 " "	27 " "
Steel furnished.....	.....	53,946 pounds.	53,946 pounds.
Concrete cap for wall placed.....	.....	430 linear feet.	430 linear feet.
Concrete wall built.....	.....	540 cubic yards.	540 cubic yards.
Dry wall built.....	.....	512 " "	512 " "
Mortar wall built.....	.....	870 " "	870 " "

NOTE.— Old work means same type of pavement, base, etc., being replaced or edgestone reset. New work means pavement, base, etc., as shown being laid for the first time, including all incidental work.

## Work Done by Paving Forces During 1934.

	Old Work.	New Work.	Total Old and New Work.
Concrete base laid.....	1,266 square yards.	.....	1,266 square yards.
Roadway, granite block, gravel joints.....	10,338 " "	676 square yards.	11,014 " "
Roadway, granite block, grout joints.....	24,583 " "	2,678 " "	27,261 " "
Gutter, granite block, gravel joints.....	8,445 " "	15 " "	8,460 " "
Gutter, granite block, grout joints.....	4,176 " "	259 " "	4,435 " "
Flagging crosswalk, gravel joints.....	258 " "	.....	258 " "

Roadway, wood block, sand joints.....	134	"	"	134	"
Macadam surface patch.....	221,284	"	"	221,284	"
Asphalt blanket coat.....	3,629	"	"	3,629	"
Sheet asphalt surface patch.....	2,944	"	"	2,944	"
Grading, no pavement laid.....	6,523	"	"	6,523	"
Cobble gutters repaired.....	4	"	"	4	"
Brick sidewalks laid.....	36,708	"	"	36,755	"
Artificial stone sidewalks laid.....	56,622	"	"	56,622	"
Gravel or crushed stone sidewalks surfaced.....	52,810	"	"	52,810	"
Tar sidewalks patched.....	2,460	"	"	2,460	"
Asphalt penetration, macadam surface placed.....				69,209	"
Edgestone set.....	25,246	linear feet		26,059	linear feet.
Fence repaired.....	245	"	"	245	"
Sidewalk excavating, no sidewalks laid.....				870	cubic yards.
Roadway excavating, no roadway constructed.....				830	"
Roadway excavating, roadway changed.....	44,654	cubic yards.		44,654	"
Rock excavating.....				440	"
Snow removed.....				221,688	"
New style sign posts erected.....				54	units.
Street cleaning.....				1,296,767	cubic yards.

## STREET OPENINGS.

Under Classes 1 and 2 of the schedule of permit fees permits were issued for openings in public ways, as follows:

	Number of Permits.
Sewer and Water Service . . . . .	4,168
Edison Company . . . . .	909
Miscellaneous . . . . .	1,305
Boston Consolidated Gas Company . . . . .	359
Emergency permits . . . . .	1,668
New England Telephone Company . . . . .	338
Boston Elevated Railway . . . . .	110
Dedham and Hyde Park Gas and Electric Company . . . . .	8
	<hr/> 8,865

Permits for other than street openings have been issued as follows:

Painting and minor repairs . . . . .	2,541
Placing signs flat on buildings . . . . .	463
Special permits . . . . .	281
Erecting and repairing buildings . . . . .	288
Erecting and repairing awnings . . . . .	169
Emergency permits for raising and lowering . . . . .	65
Moving buildings in streets . . . . .	10
Cleaning snow from roof . . . . .	18
	<hr/> 3,835
Total of all permits issued . . . . .	12,700

The fees received from these permits amounted to \$10,022.06; of this amount \$7,466.06 was deposited with the City Collector and \$2,556 was billed to public service corporations.

## BONDS.

There are now on file 2,219 surety bonds, in amount of one, three and twenty thousand dollars, covering the city against claims for damages, etc., through the use of permits.

TABLE SHOWING LENGTH AND AREA OF PAVING ON ACCEPTED STREETS, CORRECT TO JANUARY 1, 1935.

	LENGTH IN MILES.											AREA IN SQUARE YARDS.										
	Sheet Asphalt.	Asphalt Concrete.	Granite Block.	Wood Block.	Plank on Bridges.	Brick.	Concrete.	Macadam.	Gravel.	Not Graded.	Totals.	Sheet Asphalt.	Asphalt Concrete.	Granite Block.	Wood Block.	Plank on Bridges.	Brick.	Concrete.	Macadam.	Gravel.	Not Graded.	Totals.
Year 1933 report.....	130.69	124.06	89.37	2.41	0.81	0.97	9.04	289.90	25.35	2.00	674.60	2,474,376	2,553,121	2,379,843	53,409	17,920	22,435	154,477	4,746,880	393,013	59,129	12,854,612
Per Cent.....	19.37	18.39	13.25	0.36	0.12	0.14	1.34	42.97	3.76	0.30	100.00	19.25	19.86	18.52	0.41	0.14	0.17	1.20	36.93	3.06	0.46	100.00
JANUARY 1, 1935.																						
City Proper.....	33.07	21.92	31.61	1.33	0.16	0.40	1.00	7.56	0.03	.....	97.08	655,281	517,686	768,474	29,461	4,058	9,776	7,552	116,799	1,150	.....	2,110,237
Charlestown.....	0.69	1.42	10.28	0.08	0.07	.....	0.78	10.07	.....	.....	23.39	10,218	23,460	245,729	2,011	1,999	.....	18,751	146,250	.....	.....	448,418
East Boston.....	3.86	3.24	6.03	0.01	0.06	0.04	0.44	21.52	0.19	0.04	35.43	86,615	76,130	139,076	187	854	771	16,475	447,253	3,800	865	772,026
South Boston.....	7.86	3.97	14.75	0.61	0.19	0.12	0.12	16.96	0.58	1.30	46.46	149,639	95,121	364,859	10,420	4,797	3,004	3,642	301,706	9,675	34,550	977,413
Roxbury.....	25.61	12.64	14.37	0.10	0.04	0.14	0.75	39.16	1.28	.....	94.00	455,773	257,536	378,671	3,778	1,022	3,387	15,546	579,446	16,604	61	1,711,824
West Roxbury.....	20.81	29.20	3.65	0.02	0.07	.....	2.31	69.07	3.59	0.32	129.04	359,995	580,449	173,342	429	1,447	.....	33,167	1,084,098	55,679	11,608	2,300,214
Dorchester.....	31.49	29.58	7.43	0.12	0.07	0.27	1.81	83.01	3.64	.....	157.42	596,461	563,151	218,609	3,254	1,346	5,493	30,591	1,326,697	55,180	1,995	2,802,777
Brighton.....	11.19	20.54	0.65	0.04	0.08	.....	2.27	22.94	2.60	.....	60.31	255,854	416,605	75,469	2,177	1,231	.....	45,301	384,705	38,328	3,611	1,223,281
Hyde Park.....	0.35	4.22	0.05	0.10	0.05	.....	0.29	19.33	11.39	0.24	36.02	5,622	92,812	12,572	1,692	747	.....	7,056	336,826	174,166	7,919	639,412
Total.....	* 134.93	† 126.73	‡ 88.82	2.41	0.79	0.97	§ 9.77	‡ 289.62	23.30	1.90	679.24	* 2,575,458	† 2,622,950	‡ 2,376,801	53,409	17,501	22,431	§ 178,081	‡ 4,723,780	354,582	60,609	12,985,602
Per Cent.....	19.86	18.66	13.08	0.35	0.12	0.14	1.44	42.64	3.43	0.28	100.00	19.83	20.20	18.30	0.41	0.14	0.17	1.37	36.38	2.73	0.47	100.00

TOTAL PUBLIC STREETS 679.14 MILES.

NOTE.—In the above table the city is subdivided substantially on the boundary lines between the districts as they existed when annexed to Boston. Territory annexed from Brookline is included in city proper.

\* Of this amount 0.10 mile, or 834 square yards, is Biturock; and 0.08 mile, or 1,323 square yards is Kyrock; and 0.02 mile, or 470 square yards, is Unionite.

† Of this amount 0.02 mile, or 667 square yards, is Amesite; and 9.95 miles, or 181,643 square yards, is asphalt concrete; and 105.24 miles, or 2,188,448 square yards, is bitulithic; and 0.00 mile, or 4,139 square yards, is Colprovia; and 0.06 mile, or 959 square yards, is Filbertine; and 0.00 mile, or 4,000 square yards, is Hepburnite; and 0.00 mile, or 3,903 square yards, is Laykold; and 0.00 mile, or 4,167 square yards, is Macasphalt; and 0.26 mile, or 5,825 square yards, is Simasco; and 11.73 mile, or 217,375 square yards, is

Topeka; and 0.00 mile, or 4,153 square yards, is Warcolite; and 0.17 mile, or 3,270 square yards, is Carey Elastite asphalt plank; and 0.16 mile, or 3,347 square yards, is Flintkote asphalt plank; and 0.04 mile, or 854 square yards, is Johns Mauville asphalt plank.

‡ Of this amount 0.02 mile, or 181 square yards, is cobble; and 57.66 miles, or 1,770,702 square yards, is granite block paving on concrete base.

§ Of this amount 0.06 mile, or 924 square yards, is Blome granitoid concrete block.

|| Of this amount 158.14 miles, or 2,711,955 square yards, is bituminous macadam.

6.51 miles, or 34,532 square yards, public alleys included in this table; 7.55 miles, or 332,770 square yards, public streets in charge of Park Department included in this table; 3.42 miles, or 97,765 square yards, public streets in charge of Commonwealth of Massachusetts included in this table. In addition to this table there are 1.67 miles, or 8,364 square yards, of accepted footways.



## APPENDIX C.

REPORT OF THE DIVISION ENGINEER OF  
THE SANITARY DIVISION.

BOSTON, January 2, 1935.

MR. C. J. CARVEN,  
*Commissioner of Public Works.*

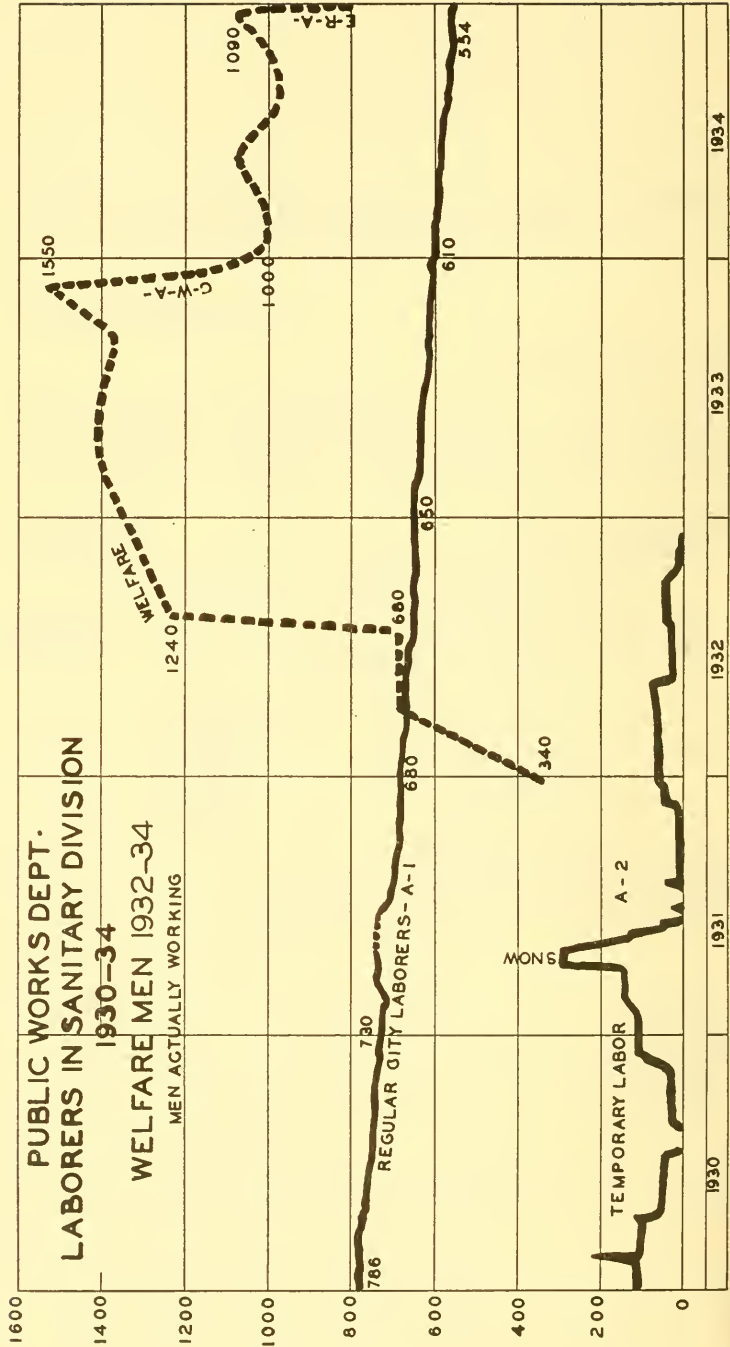
DEAR SIR,—I submit herewith a statement of the activities and expenditures of the Sanitary Division for the year ending December 31, 1934:

Maintenance expenditures . . . . .	\$2,224,258 90
Distributed as follows:	
I. Waste collection and disposal . . . . .	1,569,231 99
(a) By contract (Table III) . . . . .	\$410,120 83
(b) By day labor (Table IV) . . . . .	1,159,111 16
II. Street Cleaning (Table VII) . . . . .	590,562 42
III. Not directly chargeable to 1934 operation . . . . .	64,464 49
(a) Excess over ten-year average of disposal contract . . . . .	22,000 00
(b) For other services . . . . .	26,477 75
(c) Pensions and annuities . . . . .	9,838 72
(d) Injured rolls . . . . .	4,689 20
(e) E. R. A. . . . .	533 50
(f) Unused stock . . . . .	925 32

## Personnel changes in permanent force:

Total personnel, January 1, 1934 . . . . .	918
Transfers from other departments and divisions . . . . .	18
Appointments . . . . .	7
	—
	25
	943
Deaths . . . . .	23
Resignations . . . . .	8
Retirements . . . . .	19
Transferred out . . . . .	15
Discharged . . . . .	12
	—
	77
	866

Personnel January 1, 1935, being a net loss of fifty-two men.



*Man Power.*— The attached graph shows the decrease in the number of laborers employed in the Sanitary Division which fell during the year 1934 from 610 to 554.

Many other cities have refused to employ Welfare men on this kind of work and have therefore kept up their regular forces. In Boston, on the other hand, this continual loss of men has been made up largely by the use of Welfare men, which, as can be seen, reached a peak of 1,550 men per day at the end of 1933, but transfers to C. W. A. at the end of the year reduced the number of men supplied to the Sanitary Division to 1,000.

We have been operating with an average of this number of Welfare men during the year 1934 until the last week, when due to the E. R. A. the number of these men fell to 800, which is insufficient to keep up the work. Unless there is an immediate increase we may anticipate complaints in 1935. It should be borne in mind that in order to produce an average of 1,000 Welfare men each day 4,000 individuals will be required, because they work on an average of one and one-half days per week.

It will be noted that during the years 1930 to 1932, inclusive, it was necessary to augment the regular city laboring forces by the employment of temporary labor. Since 1932 none have been so employed, but with any further reduction in the number of Welfare men a critical point will be reached at which it will be necessary either to replenish our regular city laboring force with more men or to employ temporary labor, or both.

*Miscellaneous.*— During the year land and buildings occupied by the West End stable was sold and the horses and equipment of this division were removed to the South stable at 650 Albany street, and the East Boston stable was transferred from the jurisdiction of the Highway Division to the Sanitary Division.

A dangerous water-filled quarry near South Huntington avenue was improved by arrangement with the owners and filled with ashes and other refuse material. In Hyde Park considerable land was made at Smith Field Playground for the Park Department by arrangement with the contractor in that district. Both of these projects were attended by a saving in hauling distance.

*Government Projects.*— Under C. W. A. considerable painting of carts, trucks and miscellaneous vehicles was performed and later completed under E. R. A.

Under the C. W. A. 107 carts, forty-six trucks, twenty-one miscellaneous vehicles, twenty-three plows and part of the steel work under the Albany Street Station was done, and in an extension of this project there were painted nineteen carts, two sweepers, two flushers, part of the Sanitary stable and the roof trusses at Victory road in part. Under the E. R. A. there were two projects, one at Albany street, consisting of painting fourteen carts, one sweeper and five trucks and the completion of the stable. The other was the completion of the painting of the trusses at Victory road previously mentioned as started under C. W. A.

*Comparisons Valueless.*—Any attempt to draw conclusions as to the progress or efficiency of the Sanitary Division which is based upon a comparison of the expenditures of this year with any previous year will prove of no value for many reasons, some of the more important being listed below.

A comparison of the personal service items shows a drop in the pay rolls of some \$230,000 as compared with 1933. This is due to the following reasons:

(a) The 5, 10 and 15 per cent pay cut which operated for a nine-months, period in 1933 and reduced the pay of the direct labor from \$30 to \$27 a week was continued in 1934 for the whole twelve months of the year.

(b) The five-day week reducing the laborers' pay from \$27 to \$22.50 a week was in effect for twenty-four weeks of the year.

(c) Payless furloughs for salaried employees for twenty-two days.

(d) Loss of fifty-two permanent employees for various reasons.

(e) No charge has been made for the use of Welfare labor in any year, as we have been advised by experts that no factor of relative efficiency has been or ever can be established. All we can state is that the average number of Welfare men was about two-thirds of what it was in 1933.

(f) The expenditure for the contracts for the collection of waste was \$14,781 less than in 1933.

From the above it can be seen that any attempt to compare this year with last year on a dollar basis can only result in confusion and fruitless controversy.

Respectfully yours,

ADOLPH J. POST, *Division Engineer.*

TABLE I.

Complaint Analysis, 1934.	Number.	Per Cent.
No excuse . . . . .	2,237	49.9
Breakdown of vehicle . . . . .	50	0.10
Special . . . . .	147	3.2
Miscellaneous . . . . .	123	2.8
Total justified . . . . .	2,557	56.0
Not out . . . . .	190	4.7
Inaccessible . . . . .	320	7.2
Wrong address . . . . .	85	1.9
Frozen . . . . .	192	4.2
Snow . . . . .	484	10.4
Total unjustified . . . . .	1,271	28.4
Total complaints . . . . .	3,828	
Request for removal of dead animals . . . . .	709	15.6
Total Central Office complaints and requests . . . . .	<u>4,537</u>	<u>100.00</u>

NOTE.— The large number of complaints shown above compared with the previous year is due to unusual snow conditions in the first three months of the year, and in order to obtain a fair comparison the following adjustment has been made:

Deducting January, February and March complaints from the 1934 total, we get 2,280 for the remaining nine months, and deducting the same months from the 1933 total we get 2,360 complaints for the same nine months in 1933.

TABLE II.  
Amount Expended for the Collection and Disposal of Ashes and Garbage by Districts.

DISTRICTS.	Population.	ASHES AND RUBBISH.		GARBAGE.		Total Cost.	Per Capita.
		Cost.	Per Capita.	Cost.	Per Capita.		
1. South Boston.....	61,235	\$114,196 04	\$1.864	\$34,571 09	\$0.564	\$148,767 13	\$2.429
2. East Boston.....	63,039	36,857 33	0.584	2,354 35	0.037	39,211 68	0.622
3. Charlestown.....	30,770	53,681 13	1.744	11,323 59	0.368	65,004 72	2.112
4. Brighton.....	57,494	53,133 42	0.924	8,079 60	0.14	61,213 02	1.064
5. West Roxbury.....	63,701	33,845 16	0.531	7,664 50	0.12	41,509 66	0.651
6. Dorchester.....	198,909	201,699 71	1.014	52,843 81	0.265	254,543 52	1.278
7. Roxbury.....	151,698	309,820 73	2.042	105,754 10	0.696	415,574 83	2.74
8 and 9. South End and Back Bay.....	90,298	278,700 31	3.086	34,813 28	0.385	313,513 59	3.471
10. North and West Ends.....	58,488	193,199 11	3.303	23,051 78	0.394	216,250 89	3.697
11. Hyde Park.....	26,618	11,629 67	0.436	2,013 28	0.075	13,642 95	0.512
Totals.....	802,250	\$1,286,762 61	\$1.603	\$282,469 36	\$0.352	\$1,569,231 99	\$1.956

TABLE III.  
Cost of Collection and Disposal of Refuse by Contract in City of Boston.

Contract Districts.	CHARACTER OF REFUSE.	Cubic Yards.	Cost per District.	Cost per Cubic Yard.	Population.	Total Cost Per Capita.
2. East Boston.....	Mixed refuse.....	77,659				
	Garbage.....	3,262				
	Totals.....	80,921	\$39,211 68	\$0 484	63,039	\$0 622
4. Brighton.....	Mixed refuse.....	83,954				
	Garbage.....	7,916				
	Totals.....	91,870	\$61,213 02	\$0 666	57,494	\$1 064
5. West Roxbury.....	Mixed refuse.....	54,970				
	Garbage.....	10,695				
	Totals.....	65,665	\$41,509 66	\$0 632	63,701	\$0 651
6. Dorchester.....	Mixed refuse.....	212,904				
	Garbage.....	47,176				
	Totals.....	260,080	\$229,669 43	\$0 886		
11. Hyde Park.....	Garbage disposal, proportionate charge.....		24,874 09			
	Totals.....	260,080	\$254,543 52	\$0 978	198,909	\$1 278
	Mixed refuse.....	18,225				
	Garbage.....	3,152				
	Totals.....	21,377	\$13,642 95	\$0 638	26,618	\$0 512
	Totals (all districts).....	519,913	\$410,120 83	\$0 788	409,761	\$1 00

TABLE IV.  
Cost of Collection and Disposal of Refuse by Day Labor Force in the City of Boston for the Year Ending December 31, 1934.

Districts and Population.	CHARACTER OF REFUSE.	Cubic Yards.	COST PER CUBIC YARD.		TOTAL COST PER CUBIC YARD.			Total Cost, Collection and Disposal.	Total Cost Per Capita.
			To Collect.	For Disposal.	Collection and Disposal.	Cost to Collect.	Cost for Disposal.		
1. South Boston (61,235).....	(Mixed refuse.....	75,115	\$0 993	\$0 527	\$1 42	\$74,599 92	\$39,596 12	\$114,196 04	
	Garbage.....	10,532	2 726	0 527	3 253	28,719 52	5,851 57	34,571 09	
	Totals.....	85,647	\$1 206	\$0 527	\$1 737	\$103,319 44	\$45,447 69	\$148,767 13	\$2 429
3. Charlestown (30,770).....	(Mixed refuse.....	33,468	\$1 076	\$0 527	\$1 603	\$36,038 81	\$17,642 32	\$53,681 13	
	Garbage.....	3,730	2 508	0 527	3 035	9,357 36	1,966 23	11,323 59	
	Totals.....	37,198	\$1 219	\$0 527	\$1 747	\$45,396 17	\$19,608 55	\$65,004 72	\$2 112
7. Roxbury (151,698).....	(Mixed refuse.....	227,787	\$0 832	\$0 527	\$1 359	\$189,745 09	\$120,075 64	\$309,820 73	
	Garbage.....	44,030	1 874	0 527	2 401	82,544 13	23,209 97	105,754 10	
	Totals.....	271,817	\$1 001	\$0 527	\$1 528	\$272,289 22	\$143,285 61	\$415,574 83	\$2 74
8 and 9. South End and Back Bay (90,298),	(Mixed refuse.....	160,491	\$1 209	\$0 527	\$1 736	\$194,099 08	\$84,601 23	\$278,700 31	
	Garbage.....	14,791	1 826	0 527	2 353	27,016 35	7,796 93	34,813 28	
	Totals.....	175,282	\$1 261	\$0 527	\$1 788	\$221,115 43	\$92,398 16	\$313,513 59	\$3 471
10. North and West Ends (58,488).....	(Mixed refuse.....	133,940	\$0 915	\$0 527	\$1 442	\$122,593 45	\$70,605 66	\$193,199 11	
	Garbage.....	7,284	2 637	0 527	3 164	19,212 09	3,839 69	23,051 78	
	Totals.....	141,224	\$1 039	\$0 527	\$1 531	\$141,805 54	\$74,445 35	\$216,250 89	\$3 697
Total, 392,489.....	Totals (all districts)....	711,168	\$1 101	\$0 527	\$1 629	\$783,925 80	\$375,185 36	\$1,159,111 16	\$2 953

TABLE V.  
Comparative Costs Per Cubic Yard 1933-34.

DAY LABOR DISTRICTS.	COLLECTION.		TOTAL COST.		Cubic Yards. 1933.	Cubic Yards. 1934.
	1933.	1934.	1933. \$0.54 Disposal.	1934. \$0.527 Disposal.		
1. South Boston.....	\$1 35	\$1 206	\$1 89	\$1 733	84,853	85,647
3. Charlestown.....	1 40	1 219	1 94	1 746	38,122	37,198
7. Roxbury.....	1 25	1 001	1 79	1 528	251,009	271,817
8 and 9. South End and Back Bay.....	1 63	1 261	2 17	1 788	188,573	175,282
10. North and West Ends....	1 12	1 004	1 66	1 531	136,844	141,224
Average.....	\$1 35	\$1 102	\$1 89	\$1 629	699,401	711,168
Collection Cost.....					\$945,009 38	\$783,925 80

CONTRACT DISTRICTS.	COST PER CUBIC YARD.		Cubic Yards. 1933.	Cubic Yards. 1934.
	1933.	1934.		
2. East Boston.....	\$0 788	\$0 484	52,600	80,921
4. Brighton.....	561	666	77,960	91,870
5. West Roxbury.....	621	632	67,370	65,665
6. Dorchester (including disposal).....	1 206	886	241,942	260,080
11. Hyde Park.....	68	978	22,720	21,377
Totals.....			462,592	519,913
Average.....	\$0 938	\$0 788		

TABLE VI.  
Old Automobile Removal Report for 1934.

DISTRICTS.	CHARGED.			NOT CHARGED.		TOTAL.		Actual Cost Billed Autos.
	Autos.	Lots.	Amount Billed.	Autos.	Lots.	Autos.	Lots.	
1. South Boston.....	18	1	\$100 00	.....	.....	18	1	\$215 69
4. Brighton.....	7	2	55 00	1	.....	8	2	78 89
5. West Roxbury.....	.....	.....	.....	4	.....	4	.....	.....
6. Dorchester.....	7	.....	35 00	73	1	80	1	78 89
7. Roxbury.....	28	.....	140 00	52	2	80	2	351 50
8. South End, Back Bay and City.....	16	1	90 00	6	.....	22	1	231 66
Totals.....	76	4	\$420 00	136	3	212	7	\$956 63

TABLE VII.

## Service Cleaning and Oiling Service.

## DISTRIBUTION OF EXPENDITURES.

Removing snow . . . . .	\$106,892 99
Flushing streets . . . . .	9,579 99
Pushcart patrolling . . . . .	101,630 94
Brooming streets . . . . .	193,478 27
Horse-drawn sweeping . . . . .	107,559 53
Motor sweeping . . . . .	21,835 16
Team patrol . . . . .	13,753 39
Refuse box collection . . . . .	17,907 06
Disposal of old autos . . . . .	956 63
<hr/>	
Totals . . . . .	\$573,593 96
Oiling and watering of public streets and ways,	16,968 46
<hr/>	
Totals . . . . .	<u>\$590,562 42</u>

## APPENDIX D.

REPORT OF THE DIVISION ENGINEER OF THE  
SEWER DIVISION.

BOSTON, January 2, 1935.

MR. C. J. CARVEN,  
*Commissioner of Public Works.*

DEAR SIR,—I submit herewith statement of the activities and expenditures of the Sewer Division for the year ending December 31, 1934.

There were built by contractors, day laborers and private parties, 8.79 miles of common sewers and surface drains throughout the city.

After deducting 0.15 mile of sewers and surface drains, rebuilt or abandoned, the net increase for 1934 is 8.64 miles, which, added to the existing 1,189.29 miles of common sewers and surface drains, and 30.93 miles of intercepting sewers, makes a grand total of 1,228.86 miles of common and intercepting sewers (and surface drains) belonging to the City of Boston and under the care of the Sewer Division on January 1, 1935.

There were 333 catch-basins built or rebuilt and 128 abandoned or removed during the year, making a net gain of 205 catch-basins, and a grand total of 21,036 catch-basins under the care of the Sewer Division on January 1, 1935; also 1,839 catch-basins and 4 drop inlets were cleaned by contract.

The sewerage works built during 1934 are listed in detail on the subsequent pages of this report.

Respectfully,

GEORGE W. DAKIN,  
*Division Engineer.*

## Financial Statement from January 1, 1934, to December 31, 1934.

OBJECT.	Balance on Hand Jan. 1, 1934.	Appropriations, Loans and Revenues.	Transfers to	Transfers from	Total Credits.	Expenditures during the Year 1934.	Balance on Hand Dec. 31, 1934.
Sewer Service.....	.....	\$481,812 57	.....	\$5,500 00	\$476,312 57	\$454,503 66	\$21,808 91
Sewerage Works.....	\$287,979 81	450,063 52	.....	.....	738,043 33	506,824 91	231,218 42
P. W. A. ....	.....	1,000,000 00	.....	.....	1,000,000 00	176,372 98	823,627 02
East Boston Pumping Station and outlet....	4,456 36	.....	.....	.....	4,456 36	4,456 36	

\* \$250,000 authorized but not issued, included.

## Sewerage Works, 1934.

ACCOUNTS.	Labor.	Autos.	Teams.	Materials.	Miscellaneous.	Paid to Contractors.	Totals.
Engineers' salaries.....	\$120,765 38	.....	.....	.....	.....	.....	\$120,765 38
Engineers' expense.....	10,243 69	\$1,948 24	\$62 50	\$487 00	\$3,268 57	\$3,477 69	19,487 69
Sundries.....	429 70	46 98	.....	720 89	1,840 66	2,668 10	5,706 33
Land-takings.....	.....	.....	.....	.....	1,364 05	.....	1,364 05
New manholes.....	6,922 43	1,952 87	18 50	2,802 63	.....	3,263 04	14,959 47
New catch-basins, South Boston.....	1,251 09	97 98	.....	494 06	4 25	1,704 74	3,552 12
New catch-basins, East Boston.....	35 86	.....	.....	35 14	.....	253 00	324 00
New catch-basins, Charlestown.....	.....	.....	.....	2 63	.....	55 41	58 04
New catch-basins, Brighton.....	391 93	120 75	.....	186 60	.....	730 00	1,429 28
New catch-basins, West Roxbury.....	2,421 67	489 27	.....	1,158 73	4 58	1,489 17	5,563 42
New catch-basins, Dorchester.....	4,481 51	1,238 98	.....	3,217 98	.....	4,224 55	13,163 02
New catch-basins, Hyde Park.....	.....	.....	.....	23 90	.....	.....	23 90
New catch-basins, Roxbury.....	3,134 55	671 02	.....	1,524 59	23 50	2,159 74	7,513 40
New catch-basins, City Proper.....	5,211 70	492 10	.....	1,561 77	19 71	14,939 48	22,224 76
Repair streets.....	.....	.....	.....	612 46	.....	639 41	1,251 87
Release sewers.....	113 53	.....	.....	.....	.....	.....	113 53
Stock.....	.....	.....	.....	14,658 71	.....	.....	14,658 71
Holiday.....	1,216 86	.....	.....	.....	.....	.....	1,216 86
Totals.....	\$156,619 90	\$7,058 19	\$81 00	\$27,487 09	\$6,525 32	\$35,604 33	\$233,375 83

Sewers built, entire city.....	38,837 99	2,521 02	.....	6,551 34	15,487 64	227,722 69	291,120 68
Totals.....	\$195,457 89	\$9,579 21	\$81 00	\$34,038 43	\$22,012 96	\$263,327 02	\$524,496 51
Less construction stock, \$9,862.96; less maintenance stock, \$6,848.53; less autos and teams, \$8,754.48	.....	8,754 48	.....	16,711 49	.....	.....	25,465 97
Totals.....	\$195,457 89	\$824 73	\$81 00	\$17,326 94	\$22,012 96	\$263,327 02	\$499,030 54
Debit transfer from Sewer Service autos and teams.	.....	7,923 28	.....	.....	.....	.....	7,923 28
Totals.....	\$195,457 89	\$8,748 01	\$81 00	\$17,326 94	\$22,012 96	\$263,327 02	\$506,953 82
Debit transfer to Sewer Service stock.....	.....	.....	.....	128 91	.....	.....	128 91
Totals.....	\$195,457 89	\$8,748 01	\$81 00	\$17,198 03	\$22,012 96	\$263,327 02	\$506,824 91

## Sewerage Works, Construction, January 1, 1934, to December 31, 1934, Inclusive.

LOCATION.	Begun.	Finished.	Built by	Length. (Feet.)	Character.	Amount Expended in 1934.
SOUTH BOSTON.						
Dorchester brook overflow, across Southampton street about 360 feet east of New York, New Haven and Hartford Railroad, and Dorchester brook channel in private land, between existing 10-foot by 12-foot concrete overflow north of Massachusetts avenue and South bay.	Nov. 6, 1933	Nov. 15, 1934	V. J. Grande.....	3,593.14 117.79	Channel excavation..... Double 14 by 15" concrete channels, 4 manholes. 1 lamp hole. 2 catch-basins.	\$41,944 76
EAST BOSTON.						
Faywood avenue.....	Nov. 2, 1933	July 14, 1934	Mirand Construction Company.	881.10 878.05	10" pipe, sewer ..... 12" pipe, surface drain. 10 manholes.	2,003 97
Orient avenue, from Montmorenci avenue to 330 feet easterly.	Oct. 9, 1933	Nov. 4, 1933	The Prompt Contractors, Inc.	.....	.....	283 61
Sea View avenue and Waldemar avenue, East Boston, and Binney street, Roxbury.	July 27, 1933	Aug. 28, 1933	Battery Contracting Company.	.....	.....	154 12
Everett court, from Everett street to 120 feet northerly.	June 13, 1934	June 26, 1934	J. DiAmico, Inc.....	117.65	12" pipe, sewer ..... 1 manhole.	785 72
Montmorenci avenue.....	July 28, 1933	Sept. 18, 1933	D. Paci and DiBartolomeo Company.	.....	.....	266 84
Orient avenue and outlet in private land, from Faywood avenue to Montmorenci avenue.	Aug. 2, 1934	Aug. 31, 1934	T. J. O'Connell Company..	406.02 24.57 379.59	10" pipe, sewer ..... 12" pipe, surface drain. 10" pipe, surface drain. 7 manholes.	3,494 54
CHARLESTOWN.						
Chestnut street, from Adams street to Mt. Vernon avenue.	June 5, 1933	July 7, 1933	Marion Construction Company.	.....	.....	73 03

North Mead street, from Medford street 264 feet southerly.	Nov.	22, 1933	Aug.	1, 1934	A. R. Doyle, Inc.....	0.85	15" pipe, sewer.....	208 25
Alford street, from Malden Bridge to Everett line.	June	7, 1934	July	12, 1934	Roxbury Concrete Construc- tion Company.	286.00	pipe, minor drain ..... 6 manholes. 17 catch-basins. 3 special catch-basins. 6 drop inlets.	4,064 83
BRIGHTON.								
Bertram, Kingsley, Travis streets and outlet.	Aug.	28, 1933	Sept.	28, 1933	DiCenso and Volpe Com- pany.			664 88
Bagnal street, from Aldie street to Holton street and outlet in Aldie street, between Everett street and Bagnal street.	Nov.	28, 1933	May	11, 1934	C. W. A. and day labor.....	346.00	12" pipe, surface drain ..... 3 manholes. 3 catch-basins. 1 lamp hole.	1,463 25
Colborne road and Monastery road.....	May	4, 1933	July	15, 1933	P. Guarino & Co., Inc.....			191 43
Englewood avenue, from Brookline line to 220 feet west of Chiswick road.	June	12, 1933	July	20, 1933	DiFederico and Giammarco Company.			162 26
Glenmount road, from Lake street to Foster street.	May	2, 1933	June	7, 1933	DiCenso and Volpe Com- pany.			114 61
Pendergast avenue, from Beacon street to Brookline line.	Dec.	11, 1933	April,	1934	Roxbury Concrete Construc- tion Company.	133.50	18" sewer.....	1,750 94
Coolidge road and Arden street, from Has- kell street to Hooker street.	Nov.	6, 1933	Dec.	9, 1933	The Prompt Contractors, Inc.			391 11
South Hobart and Melvin streets *.....	Aug.,	1930		1931	D. V. Construction Com- pany.			177 67
Foster street and outlet northeast of Lane park.	Oct.	1, 1934	Oct.	11, 1934	Department labor.....	60.00	24" pipe, surface drain.....	820 91
Hooker street, from North Harvard street to 400 feet easterly.	Oct.	25, 1934	Nov.	10, 1934	Frank J. Jacobs Company..	400.30	12" pipe, surface drain.....	994 32

\* Final payment — execution of court.

## Sewerage Works, Construction, January 1, 1934, to December 31, 1934, Inclusive.—Continued.

LOCATION.	Begun.	Finished.	Built by.	Length. (Feet.)	Character.	Amount Expended in 1934.
WEST ROXBURY.						
Homewood road, between Cottage avenue and 300 feet easterly, and private land, between Landseer street and Pine Ridge road.	Nov. 2, 1932	Jan. 31, 1933	Roxbury Concrete Construction Company.			\$121 46
Atherton avenue, from Washington street to Albano street.	Oct. 19, 1933	Nov. 6, 1933	M. DeSisto Company.			191 60
Bonad road, Edgebrook road and Russett road.	May 1, 1933	July 1, 1933	Ralph Susi.			222 73
Bronx road and Ansonia street.	Dec. 8, 1933	May 14, 1934	D. Federico and Giammarco Company.	642.95	10" pipe sewer.	2,947 47
Cedarwood road and outlet in Hillcroft road,	Sept. 28, 1933	Nov. 13, 1933	Joseph Capone.			462 17
Clare avenue, from Ramsdell avenue to Canterbury street.	June 15, 1933	July 13, 1933	A. Piatelli & Co.			64 44
Cranston road, Bonad road, and private land.	May 8, 1933	Aug. 31, 1933	George A. Baker Company, Inc.			614 85
Dwinell street, Swallow street, Martin street, and Atlantic street.	Aug. 24, 1933	Sept. 21, 1933	R. Susi and Justino.			311 60
Hollywood road, from Willowdean avenue to Church street.	June 9, 1933	June 26, 1933	DiCenzo and Volpe Company.			54 30
Hinsdale road brook.	April 13, 1934	July 9, 1934	C. W. A. changed to E. R. A.	225.00 35.00	12" brook sewer. 12" brook sewer. 1 manhole.	1,175 33
Keith street, from Baker street to Perham street.	Nov. 29, 1932	May 11, 1934	C. W. A.	146.07 157.39	12" surface drain. 10" surface drain. 1 manhole. 2 catch-basins.	1,026 00

La Grange street, between Washington street and Partridge street, and Bellevue street, between Robin street and West Border road.	June 8, 1933	July	27, 1933	Tufo & Yebba, Inc.	.....	763 26
Mahler road and Colgate road	Sept. 7, 1933	Sept.	27, 1933	D. Federico and Giammarco Company.	.....	421 37
Orange street and Zeller street (sheet asphalt paving).	Oct. 11, 1933	Nov.	20, 1933	Iozza & Foraci.	.....	260 26
Partridge street, private land and Pheasant street.	July 18, 1933	Jan.	1, 1934	P. Guarino & Co.	.....	1,575 94
Perham street, from Vermont street to Keith street.	Nov. 29, 1933	May	11, 1934	C. W. A.	220.00 12" surface drain. 211.39 10" surface drain. 4 manholes. 4 catch-basins.	1,201 06
St. Theresa avenue, from Centre street to 115 feet east of Howitt road extension.	May 7, 1933	Sept.	5, 1933	Tenaglia Construction Company.	.....	1,000 97
Weld street, from Cerdan avenue to West Roxbury Parkway and outlet in Ravenna road and private land.	Nov. 14, 1933	Jan.	1, 1934	Tenaglia Construction Company.	.....	5,139 73
Washington street, from High View avenue to 160 feet northwesterly.	Jan. 8, 1934	Mar.	23, 1934	Day labor	167.06 10" surface drain.	1,993 54
Haverford street, from Cornwall street to Germania street.	Nov. 16, 1933	Dec.	9, 1933	Joseph Capone.	.....	385 54
Washington street, from Cowing street to Cottage avenue; Cottage avenue, between Washington street and 381 feet northwesterly; and Vershire street and outlet.	June 26, 1933	Nov.	14, 1933	Keystone Engineering Company.	.....	944 45
West Saville street and outlet in Emmons road.	Sept. 14, 1932	Oct.	15, 1932	A. Tosti.	.....	71 95
Cranston road, Bonad road and private land.	Sept. 25, 1933	Nov.	10, 1933	C. Russo & Co.	.....	328 91
Dent street brook, from Brook Farm Parkway to Lasell street.	July 11, 1933	Sept.	23, 1933	C. Russo & Co.	.....	552 46

## Sewerage Works, Construction, January 1, 1934, to December 31, 1934, Inclusive.—Continued.

LOCATION.	Begun.	Finished.	Built by.	Length. (Feet.)	Character.	Amount Expended in 1934.
<i>West Roxbury.—Concluded.</i>						
Private land, Royen road, Lila road and outlet in private land and Rambler road.	June 14, 1933	Aug. 31, 1933	Charles Struzziery	.....	.....	\$645 81
Parklawn road, from Brook Farm Parkway to Weld street.	Nov. 14, 1933	Dec. 9, 1933	Charles Struzziery	.....	.....	370 15
Westchester road, from Centre street to end of street.	Aug. 10, 1933	Sept. 10, 1933	Louis Balboni	.....	.....	124 17
Bellevue street, from March avenue to Howitt road.	Aug. 28, 1933	Oct. 12, 1933	A. Grande	.....	.....	343 22
Northbourne road, from Wachusett street to Bourne street.	Aug. 25, 1933	Sept. 23, 1933	M. DeSisto Company	.....	.....	408 59
Park Boulevard, from Centre street to Winchendon road.	Aug. 26, 1933	Oct. 5, 1933	C. J. Maney Company	.....	.....	546 81
Woodard road and outlet in private land to Stratford street.	Sept. 13, 1933	Oct. 16, 1933	Cefalo Contracting Company, Inc.	.....	.....	112 35
Woodward road, from existing surface drain to Saville street.	April 18, 1934	June 14, 1934	Department labor	66.00	12" surface drain. 1 manhole.	530 77
Spring street brook extension at Baker street to Prospect street.	May 10, 1934	Aug. 4, 1934	Department labor	140.00 50.00	30" brook drain. 24" brook drain.	2,756 73
Greston road, from Centre street northwesterly.	Aug. 27, 1934	Nov. 22, 1934	Joseph Capone	334.48 633.00	12" surface drain. 10" surface drain. 4 manholes. 8 catch-basins. 6 drop inlets.	3,250 32

Peak Hill road and outlet in Park Front road to Weld street.	Aug.	15, 1934	Oct.	4, 1934	The Prompt Contracting Company, Inc.	437.53 357.80 455.52	15" surface drain. 12" surface drain. 10" surface drain. 8 manholes. 4 catch-basins. 4 drop inlets.	3,898 56
Goodway road, from Florence street to Bourne street.	Sept.	26, 1934	Nov.	10, 1934	Roxbury Concrete Construction Company.	498.60 495.72	10" surface drain. 12" surface drain. 7 manholes. 4 catch-basins.	2,805 55
Stinson street brook at Birch street, Dana road to Oak road, and culvert across Pond street.	Oct.	2, 1934			E. R. A.	430.00	12" brook drain.	828 74
Cowing street, from Washington street to Vershaire street and Alleyne street.	July	3, 1933	Dec.	7, 1933	Rosli ndale Contracting Company.			1,677 65
Bismarck street, from Boylston street.	May	18, 1932	July	21, 1932	Samuel J. Tomasello.		Repaving.	308 40
Dent street, from Lasell street to Glenham street.	Dec.	31, 1934			M. DeSisto Company.			8 00
Keith street, from Alder street to Carroll street.	Nov.	20, 1934	Dec.	29, 1934	J. D'Amico, Incorporated.	239.38 253.37	10" surface drain. 15" surface drain. 2 manholes. 4 catch-basins.	848 20
Rumford road, from Chesborough road to Baker street.	Dec.	31, 1934			Frank J. Jacobs Company.			17 00
Delano park, from Poplar street to Clarendon street.	Sept.	12, 1933	Oct.	24, 1933	S. Asgrizzi.			56 00
Auckland street and Savin Hill avenue.	June	5, 1933	April	3, 1934	N. Cibotti & Co.	7.13 181.55 12.35 22.50 25.00 5.37 182.50 5.50 5.50 402.00	20" pipe sewer. 15" pipe sewer. 12" pipe sewer. 24" pipe surface drain. 12" pipe surface drain. 3' 6" concrete conduit. 3' 3" concrete conduit. 3' concrete conduit. 6" to 24" cast-iron pipe. Minor drain. 6 manholes.	20,964 58

DORCHESTER.

## Sewerage Works, Construction, January 1, 1934, to December 31, 1934, Inclusive.—Continued.

LOCATION.	Begun.	Finished.	Built by.	Length. (Feet.)	Character.	Amount Expended in 1934.
<b>DORCHESTER.—Continued.</b>						
Ashton street and Woodrow avenue.....	June 12, 1933	July 7, 1933	Battery Contracting Com- pany.	.....	.....	\$255 61
Anckland street, from Bay street to Dewar street.	Nov. 28, 1933	Dec. 21, 1933	Samuel J. Tomasello.....	.....	Repaving.....	1,676 31
Agawam street and Neponset avenue.....	Nov. 28, 1933	April 27, 1934	C. W. A. and day labor.....	218.20	12" pipe surface drain..... 2 manholes. 1 catch-basin.	522 52
Assabet street.....	Nov. 28, 1933	April 27, 1934	C. W. A. and day labor.....	195.70	12" pipe surface drain..... 2 manholes.	1,019 72
Belden street and Brookdale street.....	Sept. 12, 1933	Oct. 23, 1933	Mirand Construction Com- pany.	.....	.....	128 83
Branchfield street, from Medway street to Butler street.	Jan. 12, 1933	June 24, 1933	John Williams.....	.....	.....	64 11
Crescent avenue brook, outlet in private land, between Strandway and 1,100 feet northeasterly.	July 17, 1933	April 11, 1934	James J. Coughlin & Sons..	90.00	8' by 7' double channel.....	31,380 17
Dudley street, from Magnolia street to Columbia road.	May 15, 1933	Sept. 6, 1933	John Williams.....	.....	.....	4,605 87
Dudley street, from Magnolia street to Columbia road (permanent repaving).	Oct. 19, 1933	Nov. 1, 1933	W. G. C. Company.....	.....	Paving.....	1,141 20
Favre street (Ward 18), from Cummins Highway to Messinger street.	Nov. 1, 1933	Jan. 22, 1934	R. Susi and Justino.....	36.00 10.00 8.00 29.80 7.80 49.60	12" pipe, sewer..... 18" pipe, sewer..... 20" cast-iron pipe..... 4' 6" by 6' concrete conduit. 4' 6" concrete conduit. 6' concrete conduit. 4 manholes. 4 catch-basins. Minor drain.	3,612 45

Freeland street (Ward 18), from Standard street to 130 feet north of Eskridge road.	Dec.	18, 1933	April	4, 1934	V. Calia.....	35.00 727.30	10" pipe, sewer..... 12" pipe, surface drain. 7 manholes. 5 catch-basins. Minor drain.	2,345 27
Huntoon street, from Medway street to Butler street.	June	14, 1933	June	29, 1933	Joseph Capone.....	153.00		53 66
Hill Top street and private land.....	Oct.	6, 1933	Jan.	31, 1934	A. Grande.....			4,380 54
Magnolia street, from Quincy street to Bird street.	Aug.	28, 1933	Oct.	26, 1933	John Williams.....			513 58
Myrtlebank avenue.....	Nov.	28, 1933	April	27, 1934	C. W. A.....	1,109.35	12" pipe, surface drain. 9 manholes. 3 catch-basins.	1,189 33
Neponset avenue, from Adams street to Minot street.	Sept.	7, 1933	Oct.	14, 1933	Samuel J. Tomasello.....			478 38
Oakland brook, from Neponset river to Haven avenue.	Oct.	17, 1933	Dec.	16, 1933	Charles Struzziery.....			1,179 57
Pine Ridge road, from Morton street to Gallivan Boulevard.	Sept.	25, 1933	Nov.	16, 1933	M. DeSisto Company.....			346 44
Pumping Station, Calf-Pasture, new air pump shaft No. 5 engine.	Nov.	6, 1933	Nov.	27, 1933	Boston Engineering Company.....			190 75
Private land, from Board of Survey street, No. 533, to Manchester Street extension.	Dec.	4, 1933	Feb.	14, 1934	Begun by Joseph Botti & Son, Completed by Leo J. Nawn, Inc.	289.00	10" pipe, sewer..... 3 manholes.	2,156 84
Pleasant street, from East Cottage street to Stoughton street.	Nov.	18, 1933	Nov.	25, 1933	Simpson Brothers Corporation.....		Repaving.....	459 87
Wilmington avenue and Capen street.....	July	10, 1933	Aug.	3, 1933	Vito Calia.....			257 46
Arbutus street and Blue Hill avenue.....	March	19, 1934	April	13, 1934	Department labor.....	56.00	8" pipe sewer.	827 51
Branton street and Woodfield street, each, from Gallivan Boulevard to Minot street.	Aug.	23, 1933	Sept.	15, 1933	C. Capone.....			82 63
Crockett avenue, from Hill Top street to Milton street.	Sept.	7, 1933	Sept.	20, 1933	Joseph Capone.....			40 62

## Sewerage Works, Construction, January 1, 1934, to December 31, 1934, Inclusive.— Continued.

LOCATION.	Begun.	Finished.	Built by.	Length. (Feet.)	Character.	Amount Expended in 1934.
<i>DORCHESTER.— Concluded.</i>						
Lenoxdale avenue and Gallivan Boulevard,	May 18, 1933	July 15, 1933	Roxbury Concrete Construction Company.			\$515 81
Private land, between Wilder street and Normandy street.	Aug. 26, 1933	Sept.	Matthew Cummings			571 71
Tennis road and outlet in Blue Hill avenue.	Aug. 2, 1933	Oct.	Joseph Capone.			102 53
Eunice street and Manor street.	Aug. 29, 1933	Oct.	The Prompt Contracting Company, Inc.			132 75
Haven avenue, from Blue Hill avenue to 330 feet westerly.	Aug. 31, 1933	Oct.	Charles Struzziery.			210 33
Train street, from Victory road to Ashmont street.	Oct. 9, 1933	Nov.	John Williams.			1,033 64
Gallivan Boulevard, from Allendale avenue to Myrtlebank avenue.	May 12, 1933	June 23, 1933	Department labor.			4 50
Haven avenue, from existing sewer to 165 feet westerly.	June 14, 1934	Sept.	Department labor.	171.00 171.00	10" pipe sewer. 12" pipe surface drain. 3 manholes.	3,514 36
Savin Hill avenue, from Dorchester avenue to Treadway road (permanent repaving).	June 30, 1934	July 9, 1934	E. J. Byrne.		Paving.	2,130 09
Topliff street, from Longfellow street to Bowdoin street.	Aug. 24, 1933	Sept.	P. Cacchione.			4 68

## HYDE PARK.

Hawthorne street, Prescott street, and private land, Hyde Park.	Jan. 3, 1934	May 22, 1934	Charles Struzziery .....	1,155.45 112.00	15" pipe, sewer. Minor drain. 10 manholes.	22,375 88
Milton avenue, from Beacon street to Highland street.	Sept. 5, 1933	Oct. 17, 1933	Anthony Petrucci .....			436 43
Ransom road, from Greenfield road to 205 feet southwesterly.	March 19, 1934	May 2, 1934	John DiBartolomeo and Cefalo.	294.00 287.00	10" pipe, sewer. 12" pipe, sewer. 5 manholes.	1,472 38
Summer brook in Jefferson street, Metropolitan avenue and Central avenue.	July 3, 1933	Oct. 6, 1933	C. Repucci, Inc. ....			517 06
Windsor street, from Tileston street to 340 feet northeasterly.	Aug. 10, 1934	Aug. 31, 1934	Frank J. Jacobs .....	366.80	12" pipe, sewer. 2 manholes.	1,415 86
Camp ground area and outlet in Metropolitan Park, Stanley street, Forest street and Hawthorne street, Hyde Park.	Nov. 2, 1934		N. Cibotti & Co. ....	480.00	18" pipe, sewer. 1 manhole.	5,533 22
ROXBURY.						
Adams street, from Dudley street to Forest street.	June 22, 1933	July 15, 1933	A. Petrucci .....			38 95
Beacon street, north side, from Audubon road to St. Mary's street; Deerfield street, from Commonwealth avenue to Back street; Bay State road, from Beacon street to Soldiers Field road.	Sept. 16, 1933	Oct. 25, 1933	Baker Matz .....			913 46
Brookline avenue to Audubon road and Back Bay Fens near gate house.	May 15, 1933	June 28, 1933	C. Russo .....			116 05
Dorchester Brook, lower level, sewer in Shirley street and in Norfolk avenue.	Oct. 11, 1933	Dec. 10, 1934	C. & R. Construction Company.	658.80 1,036.50 32.28 9.70 40.00	2' by 3' 8" concrete sewer. 1' 6" by 2' 6" concrete sewer. 16" and 24" iron pipe, sewer. 12" pipe, sewer. 10" catch-basin drain. 10 catch-basins. 13 manholes. 2 special manholes. 12" pipe, sewer abandoned.	36,619 06

## Sewerage Works, Construction, January 1, 1934, to December 31, 1934, Inclusive.—Concluded.

LOCATION.	Begun.	Finished.	Built by.	Length. (Feet.)	Character.	Amount Expended in 1934.
<b>ROXBURY.—Concluded.</b>						
Fellows street, from Orange court to Hunne- man street.	Dec. 8, 1933	June 26, 1934	A. Piatelli Company.....	570.00	2' 4" by 4' 5" concrete sewer..... 7 manholes. 1 catch-basin. 12" pipe, sewer abandoned.	\$26,565 24
Holborn terrace, from Holborn street south- erly, to end of terrace.	June 20, 1933	Aug. 29, 1933	T. J. O'Connell Company..	573.00	.....	74 28
Georgia street, from Blue Hill avenue to Montana street, and Rockland street, from Walnut street to about 95 feet westerly.	July 11, 1933	Aug. 15, 1933	DiCenso and Volpe Com- pany.	.....	.....	82 32
Maywood brook in Laurel street, Ottawa street, Dale street and Sherman street.	June 22, 1931	.....	John F. Kennedy.....	.....	.....	2,082 44
For completing Maywood brook in Laurel street, and Ottawa street, from Dale street to Sherman street.	April 23, 1935	.....	James J. Coughlin & Sons, Inc.	.....	.....	489 50
<b>CITY PROPER.</b>						
Nashua street and Lowell street overflow extension.	Sept. 5, 1933	Nov. 16, 1933	V. J. Grande.....	.....	.....	1,042 16
Sharon street, from Albany street to Har- rison avenue.	Sept. 20, 1933	Oct. 27, 1933	C. Andreassi.....	.....	.....	618 41

P. W. A. Sewerage Works, Construction, January 1, 1934, to December 31, 1934, Inclusive.

LOCATION.	Began.	Finished.	Built by.	Length. (Feet.)	Character.	Amount Expended in 1934.
EAST BOSTON. (4193-N) Cottage street, from Porter street to Maverick street.	Nov. 27, 1934	.....	R. Zoppo.....	.....	.....	\$891 28
BRIGHTON. (4193-G) Shepard brook in Everett street.	Sept. 21, 1934	.....	V. J. Grande.....	451 63 225 00 600 00 58 00	15" by 10" sanitary sewer..... 10" sanitary sewer..... 5' 6" by 7' 3" U-shape conduit. 3' conduit. 4 manholes on sanitary sewer. 2 manholes on surface drain. 1 catch basin.	15,482 75
WEST ROXBURY. (4193-A) Stony brook (section 12), from 150 feet northwest of Florence street to Neponset avenue.	July 2, 1934	.....	A. Piatelli and C. D. Mar- tino.	55 00 60 00 411 00	20" sanitary sewer..... 24" surface drain..... 15' by 13' concrete conduit. 1 manhole on sanitary sewer. 1 manhole on surface drain.	25,617 66
(4193-B) Stony brook (section 13), from Neponset avenue to 400 feet northeast of Mt. Hope street.	Aug. 1, 1934	.....	George A. Fuller Company..	405 00	15' by 13' concrete conduit..... 1 manhole on surface drain.	17,216 10
(4193-F) La Grange street, from West Border road to Newton line.	Aug. 14, 1934	.....	Charles Struzziery.....	156 00 590 00 2,395 00 1,217 00 10 00	10" sanitary sewer..... 24" surface drain..... 15" to 10" surface drain. 10' by 6' 8" concrete conduit. 10' by 6' 8" to 10' by 5' concrete reducer. 23 manholes on surface drain. 3 manholes on sanitary sewer. 19 catch-basins.	48,437 14

## P. W. A. Sewerage Works, Construction, January 1, 1934, to December 31, 1934, Inclusive.—Concluded.

LOCATION.	Begun.	Finished.	Built by.	Length. (Feet.)	Character.	Amount Expended in 1933.
(4193-E) Walk Hill street, between Hyde Park avenue and Harvard street, West Roxbury.	Oct. 8, 1934	.....	Sulmona Construction Com- pany.	663.23 6,717.57	10" sanitary sewer. 24" to 10" sanitary sewer. 6 manholes on sanitary sewer. 37 manholes on surface drain. 1 jug handle manhole. 20 catch-basins.	\$17,877 90
DORCHESTER. (4193-D) Ashmont street, from Adams street to Ne- ponset avenue, and Ashmont street outlet in private land, between Neponset avenue and Ashmont street.	Aug. 27, 1934	.....	T. J. O'Connell.....	34.00 509.00 2,743.01 82.00 90.00 1,206.00	24" pipe, surface drain..... 20" by 18" pipe, surface drain. 10", 12" 15" pipe, surface drain. 3' 6" circular concrete conduit. 2' 9" circular concrete conduit. 22 manholes on surface drain. 3 manholes on sewer. 5 catch-basins. Minor drain.	20,933 31
(4193-H) Savin Hill avenue, from railroad bridge to railroad bridge.	Sept. 17, 1934	Dec. 4, 1934	A. Singarella.....	377.50 284.60 3,413.40 16.00	24" pipe, surface drain..... 18" pipe, surface drain. 12"-15" pipe, surface drain. 12"-15" pipe, sewer rebuilt. 30 manholes on surface drain. 11 manholes on sewer. 11 catch-basins.	13,259 26
(4193-K) Tenean creek conduit.....	.....	.....	.....	.....	Office work.....	29 34
(4193-L) Tenean creek conduit.....	.....	.....	.....	.....	Office work.....	29 34
(4193-O) Dorchester brook.....	.....	.....	.....	.....	Office work.....	218 12

HYDE PARK. (4193-C)	Sept. 19, 1934	Hyde Park avenue, from Metropolitan avenue, Hyde Park, and Larch place, West Roxbury.	.....	Calia & Zarilla, Inc. ....	970.00 299.92 390.60 1,555.00 585.60 819.00	10" by 12" pipe, sewer..... 10" pipe, sewer..... 12" pipe, surface drain. 12"-15" pipe, surface drain. 20" pipe, surface drain. 24" pipe, surface drain. 11 manholes on sewer. 28 manholes on surface drain. 8 catch-basins. Minor drain.	9,352 03
					143.00	4' circuit concrete conduit.....	868 66
					121.00	4' circular concrete conduit..... 2 manholes.	2,983 27
(4193-P)	Nov. 27, 1934	Outlet for Hyde Park avenue in New York, New Haven & Hartford Railroad land, between Neponset river and Hyde Park avenue.	.....	James Chesatone. ....	309.00	Office work.....	285 00
					.....	Excavating.....	1,052 48
					.....	.....	2,307 30
(4193-J)	Oct. 29, 1934	Hyde Park branch Oakland brook in Royal road; Raleigh road, Ralston road and Rutledge road, Hyde Park.	.....	Charles Andreassi & Co. ....	.....	.....	.....
					.....	.....	.....
					.....	.....	.....
ROXBURY. (4193-M)	.....	Maywood's brook in Circuit street, private land, Cathedral court, Ray street, and Regent street, from Washington street to Dale street.	.....	.....	.....	.....	.....
					.....	.....	.....
					.....	.....	.....
CITY PROPER. (4193-I)	Nov. 26, 1934	Beaver place.....	.....	A. Baruffaldi Company.....	.....	.....	.....
					.....	.....	.....
					.....	.....	.....
MISCELLANEOUS.	.....	Blue Printing, cement testing, office work...	.....	.....	.....	.....	.....
					.....	.....	.....
					.....	.....	.....

## SEWER DIVISION.

Summary of Sewer Construction for Twelve Months Ended  
December 31, 1934.

DISTRICTS.	Built by City by Contract, Day Labor, C. W. A. or P. W. A.	Built by Private Parties.	Total Length Built.	
	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Miles.</i>
City Proper.....		610.00	610.00	0.116
Roxbury.....	2,307.28		2,307.28	0.437
South Boston.....	117.79		117.79	0.022
East Boston.....	2,686.98		2,686.98	0.509
Charlestown.....	171.10		171.10	0.032
Brighton.....	2,299.18		2,299.18	0.436
West Roxbury.....	19,273.31		19,273.31	3.650
Dorchester.....	11,317.66		11,317.66	2.144
Hyde Park.....	7,631.77		7,631.77	1.445
Totals.....	45,805.07	610.00	46,415.07	8.791

# Net Increase in Length of Sewers Built Between January 1, 1934, and December 31, 1934.

DISTRICT.	Length of Sewers Built During Twelve Months Ended December 31, 1934.	Length of Sewers Re- built or Abandoned During Twelve Months Ended December 31, 1934.	Net Increase for Twelve Months Ended December 31, 1934.	
	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Miles.</i>
City Proper.....	610.00	48.00	562.00	0.106
Roxbury.....	2,307.28	600.00	1,707.28	0.323
South Boston.....	117.79	.....	117.79	0.022
East Boston.....	2,686.98	.....	2,686.98	0.509
Charlestown.....	171.10	142.38	28.72	0.005
Brighton.....	2,299.18	.....	2,299.18	0.436
West Roxbury.....	19,273.31	.....	19,273.31	3.650
Dorchester.....	11,317.66	26.00	11,291.66	2.140
Hyde Park.....	7,631.77	.....	7,631.77	1.445
Totals.....	46,415.07	816.38	45,598.69	8.636

<i>Total Length of Sewers.</i>			<i>Miles.</i>
Common sewers and surface drains built previous to January 1, 1934.....			1,189.29
Net increase of common sewers and surface drains between January 1, 1934, and December 31, 1934.....			8.64
Total common sewers and surface drains to December 31, 1934.....			1,197.93
Total intercepting sewers connecting with Metropolitan sewers to December 31, 1934.....			* 6.81
Total Boston main drainage intercepting sewers to December 31, 1934..			* 24.12
Grant total of common and intercepting sewers to December 31, 1934..			1,228.86
Total mileage of streets containing sewerage works to December 31, 1934.			667.38

\* No additional lengths during year 1934.

## Summary of Sewer Construction for Five Years Previous to December 31, 1934.

	1930.	1931.	1932.	1933.	1934.
	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>
Built by the city by contract or day labor....	146,836.12	137,783.66	96,452.48	93,434.36	45,805.07
Built by private parties,	5,090.03	5,862.05	6,155.52	972.00	610.00
Totals.....	151,926.15	143,645.71	102,608.00	94,406.36	46,415.07

## Catch-basins in Charge of Sewer Division.

DISTRICTS.	CATCH-BASIN DATA FOR TWELVE MONTHS ENDED DECEMBER 31, 1934.			TOTAL FOR WHOLE CITY IN CHARGE OF SEWER DIVISION.	
	Number Built or Rebuilt.	Number Abandoned or Removed.	Net Increase.	Previous Report to January 1, 1934.	Grand Total to January 1, 1935.
City Proper.....	81	70	11	3,594	3,605
Roxbury.....	29	23	6	3,330	3,336
South Boston.....	6	5	1	1,388	1,389
East Boston. ....	1	.....	1	1,014	1,015
Charlestown.....	22	15	7	808	815
Brighton.....	25	.....	25	1,843	1,868
West Roxbury.....	96	.....	96	3,321	3,417
Dorchester.....	65	15	50	4,893	4,943
Hyde Park.....	8	.....	8	640	648
Totals.....	333	128	205	20,831	21,036

Table of Approximate Quantities, Lifts and Duties at Calf Pasture Pumping Station from January 1, 1934, to December 31, 1934, Inclusive.

MONTH.	Total Gallons Pumped.	Average per Day, Gallons.	Minimum per Day, Gallons.	Maximum per Day, Gallons.	Average Lift, (Feet.)	AVERAGE DAILY DUTY IN MILLION FOOT-POUNDS.	
						Per Gallon of Oil.	Per Kilowatt Hour.
January	3,029,700,301	97,732,268	93,865,685	114,520,000	39.2	.....	2.0
February	2,534,785,500	90,528,054	79,292,000	141,272,500	39.2	.....	2.0
March	3,090,382,747	96,689,766	86,716,944	153,062,922	39.2	.....	2.0
April	3,276,681,863	109,905,717	82,650,002	142,810,000	39.2	.....	2.0
May	2,935,230,469	94,782,273	83,842,629	112,993,542	39.2	6.8	2.0
June	3,181,712,833	102,635,898	86,490,670	127,980,886	39.2	6.8	2.0
July	2,752,964,789	88,805,316	77,384,091	111,450,663	39.2	6.9	2.0
August	2,857,201,640	92,167,795	61,934,912	146,055,426	39.2	6.8	2.0
September	3,487,790,430	116,259,681	75,278,681	161,736,354	39.2	6.7	2.0
October	3,367,057,491	108,614,758	93,024,486	151,280,811	39.2	6.9	2.0
November	2,691,438,640	89,714,621	68,527,952	131,891,861	39.2	6.8	2.0
December	3,037,485,917	97,983,417	80,780,366	120,676,508	39.2	7.0	2.0
Totals	36,245,432,620						
Averages	3,020,452,718	99,302,555	.....	.....	39.2	6.84	2.0

NOTES.—11,340,108,120 gallons pumped by oil; 660,426 gallons of fuel oil used.

24,905,341,500 gallons pumped by electric power; 4,290,540 kilowatt hours used.

Quantities are based on plunger displacement and pump ratings, no allowance having been made for slip or condition of pump.

Running Time of Pumps.—No. 1-A, 312 hours, 5 minutes; No. 1-B, 308 hours, 25 minutes; No. 2-A, 2,613 hours, 40 minutes; No. 2-B, 2,813 hours, 15 minutes; No. 3, 5,156 hours, 40 minutes; No. 4, 4,781 hours, 40 minutes; No. 5, 6,383 hours, 35 minutes.

Total gallons pumped in 1934 . . . . .	36,245,432,620
Daily average gallons pumped . . . . .	99,302,555
Average dynamic head . . . . .	39.2
Foot gallons, total . . . . .	1,420,820,958,704
Foot pounds . . . . .	11,890,850,603,394

### Cost of Pumping for 1934.

ITEMS.	Cost.	Cost per Million Foot Gallons.
Labor.....	\$82,013 75	\$0.05772
Fuel oil, 660,426 gallons at \$0.02738.....	18,082 68	0.01273
Edison power, 4,290,540 kilowatt hours at \$0.01139 *....	48,869 20	0.03439
Oils and waste.....	1,255 79	0.00088
Rubber valves and packing.....	313 56	0.00022
Miscellaneous renewals and supplies.....	2,451 84	0.00173
Totals.....	\$152,986 82	\$0.10767
Labor at screens.....	7,338 24	0.00516
Cleaning wells.....	350 00	0.00025
Grand totals.....	\$160,675 06	\$0.11308

\* This includes power for auxiliaries and lighting, but does not include the stand-by line on poles, which amounts to 300 kilowatt hours at \$1.274 = \$382.30.

## APPENDIX E.

REPORT OF THE DIVISION ENGINEER OF  
THE WATER DIVISION.

BOSTON, January 1, 1935.

*To the Commissioner of Public Works.*

I respectfully submit the following report of the activities, operations and expenditures of the Water Division for the year ending December 31, 1934.

A continuation of the lack of building construction in the city is reflected in the fact that only 4.39 miles of pipe, varying in size from 8-inch to 16-inch, was laid for extension as compared with 4.59 miles of pipe laid in 1933.

Owing to the construction of the East Boston Tunnel, and the widening of Cross street, it was possible to tie up many dead ends of the high service in the high value city proper section of the city.

In districts the extension of water mains laid were:

City Proper	. . . . .	0.17 miles.
East Boston	. . . . .	.07 miles.
Roxbury	. . . . .	.02 miles.
Dorchester	. . . . .	.8 miles.
Brighton	. . . . .	.13 miles.
West Roxbury	. . . . .	2.54 miles.
Hyde Park	. . . . .	.66 miles.

In continuation of the policy of replacing the older and smaller water mains with larger sizes for the improvement of fire protection in the more densely populated sections of the city, 5,904 linear feet, or 1.12 miles of 4-inch and 6-inch pipe, laid fifty years or more ago, were replaced with 8-inch, 10-inch and 12-inch pipe. Some of the longer lengths were:

## CITY PROPER.

Owing to construction of Sumner Tunnel and the widening of Cross street, it was necessary to relay

approximately 477 linear feet of 12-inch pipe in Cross street, between Hanover street and Haymarket square.

Dorchester avenue, between Summer street and Fort Point Channel Bridge, 824 feet 12-inch and 824 feet 10-inch pipe relaid with 12-inch pipe.

#### EAST BOSTON.

Boardman street, from Leyden street across McLellan Highway, 453 feet 12-inch pipe relaid with 12-inch pipe.

#### BRIGHTON.

Perthshire road, 178 feet 8-inch pipe relaid with 8-inch pipe.

#### HYDE PARK.

Reservation road, 186 feet 6-inch pipe relaid with 8-inch pipe.

Water street, on account of the widening and construction of Water street by the State Department of Public Works, the following changes in water pipes were made:

139 feet 4-inch and 6-inch mains relaid with 6-inch and 8-inch mains.

502 feet 10-inch mains relaid with 10-inch mains.

220 feet 12-inch mains relaid with 16-inch mains.

The High Pressure Fire System was extended by the laying of 44 feet 16-inch pipe and 596 feet 12-inch pipe in Cross street, between Hanover street and Haymarket square.

The Welfare forces were not used to any great extent on main pipe work during the year, due to the fact that the work was performed by C. W. A. and E. R. A. forces. The work performed by these organizations was very satisfactory and a total length of 6,293 linear feet of 8-inch and 12-inch pipes were laid.

During the year agreements were entered into between the United States Government and the City of Boston for the construction of new water mains under the Federal Emergency Administration of Public Works, commonly known as the P. W. A.

As a result of the above-mentioned agreements contracts were awarded as follows:

Relaying approximately 6,000 linear feet of cast-iron water mains with 48-inch steel water mains in Brookline

avenue, from the Brookline-Boston boundary line to Kenmore square. About 1,200 feet of this pipe was laid during the year.

Laying approximately 14,200 linear feet of 48-inch steel water main in the Arborway, from Pond and Prince streets to Forest Hills street, and in Forest Hills street, Glen road, Sigourney street and Walnut avenue. This work provides an additional supply of water to the Dorchester high service section. About 9,000 feet of this pipe was laid during the year.

The regular work of the Distribution Branch, consisting of leak repairs, installation of service pipes, caring for complaints, shutting off and letting on water, etc., was performed in such a manner and at such periods as to cause a minimum of delay and inconvenience to applicants for water, water takers and the general public. Practically all activities in the business district are now performed on Sundays and holidays.

The extreme cold weather of the past season caused the freezing of many service pipes throughout the city, which necessitated the employment of five electrically-operated thawing outfits, including a set of dry batteries.

Very respectfully,

D. M. SULLIVAN,  
*Division Engineer.*

## 1934 — Financial Transactions — Water Division.

Balance after deducting expenditures of Water Income		
Division . . . . .		\$4,094,343 79
Balance January 1, 1934 . . . . .		214,899 61
Amount available for Water Division purposes . . .		<u>\$4,309,243 40</u>
Expenditures from Revenue:		
Current expenses and extensions . . . . .	\$940,578 22	
Metropolitan Water Assessments . . . . .	<u>3,134,977 47</u>	
		<u>4,075,555 69</u>
		\$233,687 71
Expenditures on Debt Account:		
Interest on water loans . . . . .	\$14,375 00	
Serial loans, Boston water debt . . . . .	34,000 00	
Serial loans, Hyde Park water debt, . . . . .	<u>16,000 00</u>	
		<u>64,375 00</u>
Balance December 31, 1934 . . . . .		<u><u>\$169,312 71</u></u>
Loan Account:		
Balance outstanding first of year . . . . .	\$388,000 00	
Incurred during year . . . . .	<u>500,000 00</u>	
Total loans . . . . .	\$888,000 00	
Paid during year . . . . .	<u>50,000 00</u>	
Balance end of year December 31, 1934 . . . . .		<u><u>\$838,000 00</u></u>
Construction Account:		
Extension of mains (from revenue), . . . . .	\$107,261 25	
From loans for P. W. A. projects		
No. 4214 and No. 7233 . . . . .	214,961 47	
High Pressure Fire Service . . . . .	<u>5,847 47</u>	
Total construction 1934 . . . . .		<u><u>\$328,070 19</u></u>
Cost of construction December 31, 1934 . . . . .	\$25,233,397 56	
Cost of construction December 31, 1933 . . . . .	<u>24,905,327 37</u>	
Increase of plant cost during 1934 . . . . .		<u><u>\$328,070 19</u></u>
Cost of existing works December 31, 1934:		
Pipe, yards and buildings . . . . .	\$94,832 16	
Engineering expenses . . . . .	57,873 58	
Distribution system (additions		
1934, \$322,222.72) . . . . .	* 22,588,522 11	
Hyde Park water works . . . . .	175,000 00	
High Pressure Fire Service . . . . .	<u>2,317,169 71</u>	
		<u><u>\$25,233,397 56</u></u>

\* Includes \$155,023.89 expended for High Pressure Fire Service in 1925, 1926, 1931, 1932, 1933.

Table No. 1.

*Showing Length of Water Pipes and Connections Owned and Operated by the Public Works Department, Water Division, Water Service, and Number of Valves in Same, December 31, 1934.*

	DIAMETER OF PIPES IN INCHES.																Total.
	48.	42.	40.	36.	30.	24.	20.	16.	14.	12.	10.	8.	6.	4.	3.	2.	
Length owned and operated																	
December 31, 1933.....	21,655	15,980	15,352	44,540	90,643	83,924	86,581	310,646	4,966	1,707,263	454,236	1,112,174	1,049,521	73,277	11,033	6,509	5,088,300
Gate valves in same.....	20	4	9	24	56	78	73	736	18	4,817	1,557	4,093	3,392	554	17	16	15,464
Air valves in same.....	38	5	10	35	114	80	42	93	....	39	1	5	....	....	1	....	483
Blow-offs in same.....	3	4	6	11	33	34	48	74	....	161	40	192	143	65	14	2	830
Length laid and relaid during																	
1934.....	10,285	....	19	40	82	....	....	589	....	11,380	852	6,873	321	148	192	....	30,781
Gate valves in same.....	2	....	....	1	1	....	2	2	....	63	8	42	3	4	1	....	127
Air valves in same.....	9	....	....	....	....	....	....	3	....	1	....	....	....	....	....	....	15
Blow-offs in same.....	4	....	....	....	....	....	....	1	....	1	....	9	....	....	1	....	17
Length abandoned during 1934.....	....	....	1,419	....	102	....	....	96	....	2,620	1,715	318	1,573	377	....	....	8,220
Gate valves in same.....	....	....	1	....	1	....	....	....	....	8	6	2	11	3	....	....	32
Air valves in same.....	....	....	....	....	....	....	....	....	....	3	....	....	....	....	....	....	3
Blow-offs in same.....	....	....	....	....	....	....	....	....	....	3	....	2	....	....	....	....	5
Length owned and operated																	
December 31, 1934.....	31,940	15,980	13,952	44,580	90,623	83,924	86,581	311,139	4,966	1,716,023	453,373	1,118,729	1,048,269	73,048	11,225	6,509	5,110,861
Gate valves in same.....	22	4	8	25	56	78	73	738	18	4,872	1,559	4,133	3,384	555	18	16	15,559
Air valves in same.....	47	5	10	35	114	80	44	96	....	57	1	5	....	....	1	....	495
Blow-offs in same.....	7	4	6	11	33	34	48	75	....	159	40	199	144	65	15	2	842

967.96 miles in system.

967.96 miles in system.

Table No. II.

## HIGH PRESSURE FIRE SERVICE.

*Showing Length of Water Pipes and Connections and Number of Valves in Same,  
December 31, 1934.*

	20-INCH.	16-INCH.	12-INCH.	8-INCH.	6-INCH.	Totals.
Length owned and operated December 31, 1933.....	20,140	46,909	31,160	.....	.....	98,209
Gates in same.....	.....	201	142	502	.....	845
Blow-offs in same.....	.....	.....	.....	.....	6	6
Length laid in 1934.....	.....	44	596	.....	.....	640
Gate valves in same.....	.....	.....	2	.....	.....	2
Length owned and operated December 31, 1934.....	20,140	46,953	31,756	.....	.....	98,849
Gate valves in same.....	.....	201	144	502	.....	847
Blow-offs in same.....	.....	.....	.....	.....	6	6

18.72 miles in system.

Table No. III.

*Total Number of Hydrants in System December 31, 1934.*

	Lowry.	Boston Lowry.	Boston Post.	Ordinary Post.	Batchelder and Fineran Post.	Ludlow Post.	Chapman Post.	Coffin Post.	Matthews Post.	Boston.	Totals.
Brighton (public) .....	7	17	251	383	405	.....	.....	.....	.....	9	1,072
" (private) .....	.....	.....	.....	8	.....	.....	.....	.....	.....	2	10
Charlestown (public) .....	47	14	122	45	118	.....	.....	.....	.....	2	348
" (private) .....	13	1	2	37	.....	.....	.....	.....	.....	5	58
City Proper (public) .....	413	28	370	209	446	.....	.....	.....	.....	49	1,515
" (private) .....	5	.....	9	1	2	.....	.....	.....	.....	37	54
Dorchester (public) .....	68	87	626	1,007	776	.....	.....	.....	.....	14	2,578
" (private) .....	1	1	9	.....	2	.....	.....	.....	.....	4	17
East Boston (public) .....	11	7	160	187	172	.....	.....	.....	.....	5	542
" (private) .....	8	1	.....	9	.....	.....	.....	.....	.....	25	43
Hyde Park (public) .....	.....	.....	100	131	353	4	60	1	.....	.....	649
" (private) .....	.....	.....	.....	.....	.....	13	55	.....	4	.....	72
Roxbury (public) .....	27	32	302	248	929	.....	.....	.....	.....	2	1,540
" (private) .....	2	1	3	4	.....	.....	.....	.....	.....	9	19
South Boston (public) .....	58	15	200	170	204	.....	.....	.....	.....	14	661
" (private) .....	4	1	.....	15	.....	.....	.....	.....	.....	27	47
West Roxbury (public) .....	10	126	404	933	788	.....	.....	.....	.....	13	2,274
" (private) .....	.....	.....	.....	15	1	.....	.....	.....	.....	1	17
Deer Island (private) .....	.....	.....	1	19	.....	.....	.....	.....	.....	.....	20
Gallup's Island (private) .....	.....	.....	.....	3	.....	.....	.....	.....	.....	1	4
Long Island (private) .....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	6
Rainsford Island (private) .....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
Thompson's Island (private) .....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
Quincy .....	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	9
Total number (public) .....	641	326	2,535	3,313	4,191	4	60	1	.....	108	11,179
Total number (private and suburban) .....	33	5	24	131	5	13	55	.....	4	111	381

## WATERWORKS STATISTICS, CITY OF BOSTON.

FOR THE FISCAL YEAR ENDING DECEMBER 31, 1934.

## DISTRIBUTION.

*Mains.*

Kind of pipe: Cast-iron, wrought iron, fabricated steel.

Size: 2-inch to 48-inch.

Extended, miles, 4.40.

Size enlarged, miles, .739.

Total miles now in use, 967.96.

Public hydrants added, 29.

Public hydrants now in use, 11,179.

Stop gates added, 95.

Stop gates now in use, 15,525.

Stop gates smaller than 4-inch, 34.

Number of blow-offs, 842.

Range of pressure on mains, 30 to 90 pounds.

*Service.*

Kind of pipe and size: Lead and lead lined,  $\frac{1}{2}$ -inch to 2-inch; cast-iron 2-inch to 16-inch; wrought-iron and cement lined,  $\frac{3}{4}$ -inch to 2-inch brass and copper,  $\frac{5}{8}$ -inch to 2 $\frac{1}{2}$ -inch.

Service taps added, 63.

Total service taps now in use as per metered services, 100,797.

*High Pressure Fire System.*

Kind of pipe: Cast-iron.

Size: 8-inch to 20-inch.

Extended, miles, .27.

Total miles now in use, 18.72.

High pressure hydrants now in use, 503.

Range of pressure on mains, 50 to 300 pounds.

Gate valves added, 2.

Gate valves now in use, 847.

Number of blow-offs, 6.

Cost of Abandoned Main Pipe.

STREET.	Location.	District.	Size (Inch.)	Feet.	Cost of Depart- ment Materials, etc.	Cost of Labor.	Cost of Inspection.	Total Cost.	Remarks.
Custom House street.....	Between Broad and India streets....	City Proper.	6	230	\$521 55	\$137 41	\$3 67	\$662 63	Public, granite block and concrete base.
Garfield place.....	Between Washington street and dead end.	Roxbury.	6	215	49 74	68 29	.....	118 03	Street abandoned.
	Totals.....	.....	6	445	\$571 29	\$205 70	\$3 67	\$780 66	
Saratoga street.....	Between Pope and Curtis streets....	East Boston.	12	250	\$168 89	\$398 60	\$44 89	\$612 38	Public, under construction.

## Cost of Relocation of Main Pipe.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost of Depart- ment Materials, etc.	Cost of Labor.	Cost of Inspection.	Total Cost.	Original Size. (Inch.)	Feet.	Remarks.
Brookley road.....	Between Forest Hills and Locust streets.	West Roxbury.	8	10	\$15 84	\$13 50	\$5 36	\$34 70	8	10	P. W. A. project 7223B.
Whitford street.....	At Delano park.....	West Roxbury.	8	206	80 08	656 70	57 46	794 24	8	206	Public, under construction.
Standard street.....	Totals.....	.....	.....	216	\$95 92	\$670 20	\$62 82	\$828 94	.....	216	.....
	Between Freeland street and dead end.	Dorchester.	10	223	\$489 35	\$863 88	\$16 75	\$1,369 98	10	223	Public, concrete.
Savin Hill avenue.....	Opposite No. 275.....	Dorchester.	10	20	58 08	74 25	7 95	140 28	10	20	Public, macadam.
New State highway.....	Between Fairmount and Dana avenues.	Hyde Park.	10	502	1,109 04	982 01	74 37	2,165 42	10	502	State highway.
	Totals.....	.....	.....	745	\$1,656 47	\$1,920 14	\$99 07	\$3,675 68	.....	745	.....
Canal street.....	Between Haymarket square and Canal street.	City Proper.	12	261	\$899 74	\$1,403 05	\$98 90	\$2,401 69	12	285	Public, under construction.
Forest Hills street.....	Between Lotus street and Brookley road.	West Roxbury.	12	211	405 33	517 66	25 46	948 45	12	211	P. W. A. project 7223B.
Forest Hills street.....	Between Rossmore road and Williams street.	West Roxbury.	12	234	609 11	598 42	67 00	1,274 53	12	234	P. W. A. project 7223B.
Bates street.....	From Beech street.....	West Roxbury.	12	77	89 17	280 59	22 10	391 86	12	77	Public, under construction.
	Totals.....	.....	.....	783	\$2,003 35	\$2,799 72	\$213 46	\$5,016 53	.....	807	.....
Southampton street.....	Between Moore and Ellery streets.	Roxbury.	16	60	\$165 11	\$172 26	\$4 66	\$342 03	16	60	Public, granite block.

## Cost of Replacement of Main Pipe.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost of Depart- ment Materials, etc.	Cost of Labor.	Cost of Inspec- tion.	Total Cost.	Original Size. (Inch.)	Feet.	Remarks.
Bridge street.....	Between new State highway and railroad.	Hyde Park.	4	19	\$49 40	\$6 00	\$2 01	\$57 41	4	19	Private, gravel.
Fairmount terrace.....	Between new State highway and dead end.	Hyde Park.	6	48	\$73 50	\$24 00	\$2 01	\$99 51	4	48	Private, hard pan.
Pickering avenue.....	Between Walnut street and dead end.	Roxbury.	6	236	320 87	477 12	29 34	827 33	4	200	Private, gravel.
	Totals.....		.....	284	\$394 37	\$501 12	\$31 35	\$926 84	.....	248	
Salem street.....	At Cross street.....	City Proper.	8	32	\$131 71	.....	\$12 47	.....	8	32	Public, under construction.
Curtis street.....	Between Chaucer and Sara- toga streets.	East Boston.	8	20	182 25	\$115 00	3 35	.....	6	20	Public, under construction.
Chaucer street.....	Between Curtis and Moore streets.	East Boston.	8	20	77 21	65 00	5 36	.....	6	20	Public, under construction.
Neponset avenue.....	Between new State highway and Loring street.	Hyde Park.	8	91	128 90	45 50	2 01	.....	6	91	Public, hardpan.
Reservation road.....	Between Beacon and Brain- ard streets.	Hyde Park.	8	145	683 62	404 32			{ 6 4 } { 58 87 }	{ 6 4 } { 23 23 }	Public, macadam.
Dedham street.....	From Reservation road.....	Hyde Park.	8	23					{ 4 6 } { 110 189 }	{ 4 8 } { 32 32 }	
	Totals.....		.....	331							
Byron street.....	At Pope street.....	East Boston.	10	7	\$8 71	\$14 00	\$1 34	\$24 05	10	7	Public, under construction.
Endicott street.....	At Cross street.....	City Proper.	12	160	607 83	.....	44 37	.....	12	160	Public, under construction.

## Cost of Replacement of Main Pipe.—Concluded.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost of Depart- ment Materials, etc.	Cost of Labor.	Cost of Inspection.	Total Cost.	Original Size (Inch.)	Feet.	Remarks.
Cross street.....	Between Hanover street and Washington Street North.	City Proper.	12	460	.....	.....	\$110 63	.....	12	460	Public, under construction.
Dorchester avenue.....	Between Summer street and drawbridge.	City Proper.	12	1,648	\$3,485 63	\$35 70	79 56	\$3,600 89	12 10	824 824	Public, under construction, P. W. A.
Pope street.....	Between Curtis and Swift streets.	East Boston.	12	228	537 59	839 82	15 41	1,392 82	6	228	Public, under construction.
Curtis street.....	Between Chaucer and Pope streets.	East Boston.	12	70	224 01	245 00	6 70	475 71	8	70	Public, under construction.
Pope street.....	Between Curtis and Moore streets.	East Boston.	12	252	479 34	355 10	16 08	850 52	6 10	113 139	Public, under construction.
Pope street.....	Between Moore and Words- worth streets.	East Boston.	12	190	372 08	424 69	23 28	820 05	6	190	Public, under construction.
Dana avenue.....	Between Loring street and railroad.	Hyde Park.	12	115	432 54	98 58	4 72	535 84	6	115	Public, gravel.
Williams avenue.....	Between new State highway and Highland street.	Hyde Park.	12	104	271 20	70 72	4 02	345 94	6	104	Public, hardpan.
Fairmount avenue.....	Between new State highway and railroad.	Hyde Park.	12	16	179 10	74 55	8 71	262 36	12	16	Public, hardpan.
Tilston street.....	Between Tracton avenue and Radcliffe road.	Hyde Park.	12	152	537 72	241 36	25 46	804 54	6	152	Public, peat and sand.
Shirley street.....	Between Massachusetts av- enue and Norfolk avenue.	Roxbury.	12	85	778 03	.....	.....	.....	12	85	Public, granite block and con- crete base.
Massachusetts avenue...	At Shirley street.....	Roxbury.	16	36	778 03	373 38	85 76	1,237 17	16	36	
Totals.....		.....	{ 12 16	{ 3,480 36	.....	.....	.....	.....	{ 6 10 12 16	{ 902 70 963 1,545 36	

Brookline avenue.....	Between Brookline line and Deaconess road.	Roxbury.	{*48} 1,400 {	{40} 19 {					{40} 1,419 {	P. W. A. Project 4214.
Francis street.....	From Brookline avenue.....	Roxbury.	{ 36 20 {	{ 30 102 {					{ 30 102 {	Relaid.
Francis street.....	From Brookline avenue.....	Roxbury.	{ 12 18 {	{ 12 18 {					{ 12 18 {	Relocated.
Fenwood road.....	From Brookline avenue.....	Roxbury.	{ 6 19 {	{ 6 19 {	\$1,975 22	\$39,235 36	\$787 27	\$41,907 85	{ 6 19 {	Relocated.
Peabody street.....	From Brookline avenue.....	Roxbury.	{ 6 8 {	{ 6 8 {					{ 6 8 {	Relocated.
Deaconess road.....	From Brookline avenue.....	Roxbury.	{ 6 10 {	{ 6 10 {					{ 6 10 {	Relocated.
	Totals.....		{ 6 37 {	{ 12 37 {					{ 6 37 {	
			{ 30 82 {	{ 30 18 {					{ 12 18 {	
			{ 36 20 {	{ 36 102 {					{ 30 102 {	
			{ 40 19 {	{ 40 1,419 {					{ 40 1,419 {	
			{ 48 1,400 {							

\* Steel pipe.

## Cost of Extension of Main Pipe.

STREET.	Location.	District.	Size (Inch.)	Feet.	Cost of Depart- ment Materials, etc.	Cost of Labor.	Cost of Inspec- tion.	Total Cost.	Remarks.
Cross street.....	Between Hanover street and Washington Street North.	City Proper.	12	442	.....	.....	\$104 60	.....	Public, under construction.
Washington Street North..	Between Haymarket square and Stillman street.	City Proper.	12	147	.....	.....	26 80	.....	Public, under construction.
Service road.....	Between Glenhill road and River street.	Dorchester.	12	274	\$1,189 00	.....	232 56	\$1,421 56	C. W. A. project B74.
Gallivan Boulevard.....	Between Neponset avenue and Hallet street.	Dorchester.	12	881	2,422 15	.....	285 58	2,707 73	C W. A. project B74.
Favre street.....	Between Cummins Highway and Messinger street.	Dorchester.	12	162	392 48	\$209 30	19 40	621 18	Public, under construction.
Freeland street.....	Between Standard street and dead end.	Dorchester.	12	23	50 04	29 70	2 68	82 42	Public, under construction.
Boardman street.....	Between Saratoga street and Boston and Maine Railroad.	East Boston.	12	409	1,158 31	1,029 80	26 80	2,214 91	Public, under construction.
Bennington street.....	At end of Boston line.....	East Boston.	12	181	517 12	399 44	.....	916 56	Public, gravel.
Pope street.....	Between Moore and Wordsworth streets.	East Boston.	12	262	468 16	520 00	23 28	1,011 44	Public, under construction.
Passageway.....	Between new State highway and railroad.	Hyde Park.	12	63	195 50	34 00	1 34	230 84	Private, gravel.
New State Highway.....	Between Fairmount and Dana avenues.	Hyde Park.	12	1,561	3,838 76	1,151 80	53 60	5,044 16	State highway, clay, gravel, rock.
Orange street.....	Between Walworth and Brooks streets.	West Roxbury.	12	80	284 51	446 26	11 52	742 29	Public, under construction, rock.
Lyall street.....	Between Brook Farm Parkway and Lasell street.	West Roxbury.	12	424	897 51	366 59	100 62	1,364 72	C. W. A. project B74.

Addington road.....	Between Caspar and Lyall streets,	West Roxbury.	12	399	793 91	11 40	145 34	950 65	C. W. A. project B74.
Chellman street.....	Between Addington road and Lasell street.	West Roxbury.	8	15					
Dale street.....	Between Burley street and railroad.	West Roxbury.	{ 16 12	{ 27 1,075					
Sherrin street.....	Between Dale and West streets..	West Roxbury.	12	23					
Metropolitan avenue.....	Between Hyde Park avenue and railroad.	West Roxbury.	{ 12 16	{ 85 27	3,064 82	5 10	417 20	3,487 12	C. W. A. project B74.
Providence street.....	Between Metropolitan avenue and dead end.	West Roxbury.	{ 4 8	{ 7 23					
Greaton road.....	Between Centre street and Esther road.	West Roxbury.	{ 8 12	{ 20 336	1,114 80	299 90	43 55	1,458 25	Public, under construction.
Esther road.....	Between Greaton and Russett roads.	West Roxbury.	12	272	836 79	184 48	26 80	1,048 07	Private, clay.
	Totals.....		{ 16 12 8 4	{ 54 7,099 58 7					
Haven avenue.....	Between Blue Hill avenue and Cummins Highway.	Dorchester.	16	400	\$1,173 89	\$1,356 64	\$94 80	\$2,625 33	Private, ledge.
Addison street.....	At new state highway.....	East Boston.	16	39	280 11	360 00	15 41	655 52	Public, under construction.
	Totals.....		16	439	\$1,454 00	\$1,716 64	\$110 21	\$3,280 85	
Arborway.....	Between Pond and Forest Hills streets,	West Roxbury.	{ *36 *48	{ 20 7,085	\$2,649 53	\$209,216 09	\$949 23	\$212,814 85	P. W. A. project 7223A.
Forest Hills street.....	Between Arborway and Glen road.	West Roxbury.	*48	1,800					
	Totals.....		{ *36 *48	{ 20 8,885					

\* Steel pipe.

## Cost of Extension of Main Pipe.—Continued.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost of Depart- ment Materials, etc.	Cost of Labor.	Cost of Inspection.	Total Cost.	Remarks.
Chelsea place.....	From No. 90 Chelsea street.....	East Boston..	3	192	\$533 97	\$602 36	.....	\$1,136 33	Private, macadam.
Seminary street.....	Between Austin street and Seminary place.	Charlestown.	4	122	\$637 21	\$178 48	.....	\$815 69	Public, granite block, granite lithic.
Washington street.....	Between Corey road and Brookline line.	Brighton.	8	150	\$587 77	\$469 26	\$26 52	\$1,083 55	Public, clay, rock, artificial stone sidewalk.
O'Connell road.....	Between Valley road and Washington street.	Dorchester.	8	258	317 37	.....	43 26	360 63	C. W. A. project B74.
Sewall street.....	Between Southwick and Pope's Hill streets.	Dorchester.	8	328	716 11	7 60	96 37	820 08	C. W. A. project B74.
Pope's Hill street.....	Between Houghton and Sewall streets.	Dorchester.	8	15					
Oak Hill avenue.....	Between West Selden street and dead end.	Dorchester.	8	126	241 43	312 34	32 62	586 80	Private, clay and ledge.
Hillsboro road.....	Between Ormond and Wellington Hill streets.	Dorchester.	8	602	920 14	274 42	40 78	1,235 34	Public, under construction.
Outlook road.....	At Hillsboro road.....	Dorchester.	8	19					
Myrtlebank avenue.....	Between Hill Top and Milton streets.	Dorchester.	8	305	511 96	580 27	38 51	1,130 74	Public, gravel.
Wordsworth street.....	At Pope street.....	East Boston.	8	28	252 40	75 00	2 68	330 08	Public, under construction.
Windsor street.....	Between Tileston street and dead end.	Hyde Park.	8	363	641 41	827 92	71 02	1,540 35	Private, hard pan and rock.
Washington street.....	Between Circuit street and Hawthorne avenue.	Roxbury.	8	150	1,929 94	529 67	41 54	2,501 15	Public, granite block and concrete base.

Lindall street.....	Between Basile street and Murray Hill road.	West Roxbury.	8	214	385 64	1,446 02	34 74	1,866 60	Private, sand.
Dent street.....	Between Burard and Thurlow streets.	West Roxbury.	8	182	324 83	1,414 63	115 24	1,854 70	Public, hard pan.
Keith street.....	Between Carroll and Alden streets.	West Roxbury.	8	144	232 38	980 28	58 96	1,271 62	Private, dirt.
Eastwood circuit.....	South of Oakmere street.....	West Roxbury.	8	102	211 68	431 79	64 32	707 79	Private, gravel and sand.
Sherwood road.....	Between Russell and Bonad roads.	West Roxbury.	8	215	371 20	266 46	37 28	674 94	Private, clay.
American Legion Highway.	Between Stella road and Mt. Hope street.	West Roxbury.	8	323	519 00	384 52	34 95	938 47	Public highway, gravel.
Rendall road.....	Between Weld street and Brookline line.	West Roxbury.	8	79	162 10	176 30	19 89	358 29	Private, clay.
Maple terrace.....	Between Maple street and dead end.	West Roxbury.	8	259	538 03	468 25	28 73	1,035 01	Private, clay.
Rendall road.....	Between Weld and Church streets.	West Roxbury.	8	116	195 01	305 83	30 94	531 78	Private, clay.
Upland road.....	Between Centre and Vogel streets.	West Roxbury.	8	95	188 17	71 25	7 67	267 09	Private, gravel and sand.
Riverview street.....	Between Simson street and North avenue.	West Roxbury.	8	686	1,148 18	1,444 28	112 23	2,704 69	Private, gravel and sand.
Bonair street.....	Between Addington road and Dwinell street.	West Roxbury.	8	43	69 91	25 80	8 04	103 75	Private, clay.
Addington road.....	Between Lyall and Bonair streets.	West Roxbury.	8	276	366 01	173 31	23 45	562 77	Private, clay.
Upland road.....	Between Riverview and Wright roads.	West Roxbury.	8	287	370 97	679 92	60 16	1,111 05	Private, gravel and sand.
Vogel street.....	Between Upland road and Simson street.	West Roxbury.	8	243	483 57	545 70	56 32	1,085 59	Private, gravel and sand.

## Cost of Extension of Main Pipe.—Concluded.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost of Depart- ment Materials, etc.	Cost of Labor.	Cost of Inspec- tion.	Total Cost.	Remarks.
Buchanan road .....	Between Centre street and dead end.	West Roxbury.	8	89	\$398 12	\$384 21	\$34 84	\$817 17	Private, ashfill.
Andover road .....	Between Centre street and Buchanan road.	West Roxbury.	8	34					
Churchill road .....	Between St. Theresa avenue and dead end.	West Roxbury.	8	190	379 06	211 56	37 52	628 14	Private, clay and ledge.
Bald Knob road .....	Between Gardner avenue and dead end.	West Roxbury.	8	166	263 20	272 77	37 52	573 49	Metropolitan District Commission, park road.
Martin street .....	Between La Grange street and Emmons road.	West Roxbury.	8	30	114 08	119 40	4 42	237 90	Private, clay.
Cowing street .....	Between La Grange street and Swallow street.	West Roxbury	8	45	106 53	179 10	8 84	294 47	Private, clay and rock.
Overlook road .....	Between Bungalow and Cross roads.	West Roxbury.	8	106	249 95	1,008 10	72 93	1,330 98	Private, ledge.
	Totals .....	.....	8	6,268	\$13,196 65	\$14,065 96	\$1,282 49	\$28,545 10	
Custom House street .....	Between Broad and India streets,	City Proper.	10	100	\$668 61	\$656 99	\$90 47	\$1,416 07	Public, granite block and concrete base.

## Number of Premises Shut Off in 1934 for Unpaid Water Bills.

District.	Number Shut Off.
Dorchester . . . . .	525
Brighton . . . . .	7
West Roxbury . . . . .	107
District covered by South End Yard . . . . .	1,126
Hyde Park . . . . .	57
East Boston . . . . .	27
Charlestown . . . . .	102
Total . . . . .	<u>1,901</u>

## WATER INCOME DIVISION.

Statement of Each Year's Water Rates, 1912 to 1934, Inclusive,  
as of December 31, 1934.

YEAR.	Amount Assessed.	Amount Abated.	Amount Collected.	Outstanding.
1912.....	\$3,001,771 87	\$58,369 39	\$2,943,402 48	
1913.....	3,004 331 52	50,147 90	2,954,183 62	
1914.....	3,034,885 83	64,653 01	2,970,232 82	
1915.....	2,960,797 45	57,782 09	2,903,015 36	
1916.....	3,130,590 53	67,771 69	3,062,818 84	
1917.....	3,120,878 86	77,353 75	3,043,525 11	
1918.....	3,359,714 95	162,415 52	3,197,299 43	
1919.....	3,210,147 91	95,812 76	3,114,335 15	
1920.....	3,503,677 88	123,509 90	3,380,167 98	
1921.....	3,615,663 51	90,946 23	3,524,717 28	
1922.....	3,612,715 51	90,453 27	3,522,262 24	
1923.....	3,817,642 72	77,449 02	3,740,193 70	
1924.....	3,832,531 26	43,663 01	3,783,326 68	\$5,541 57
1925.....	3,875,434 21	39,069 54	3,829,104 47	7,260 20
1926.....	3,910,119 54	44,686 14	3,858,039 73	7,393 67
1927.....	3,979,098 85	44,081 67	3,916,414 63	18,602 55
1928.....	4,418,039 84	37,728 75	4,370,918 39	9,392 70
1929.....	5,018,462 49	44,717 02	4,957,801 52	15,943 95
1930.....	4,864,180 27	43,427 75	4,797,654 02	23,098 50
1931.....	4,749,546 18	44,626 42	4,660,990 53	43,929 23
1932.....	4,611,396 02	32,737 34	4,460,180 54	118,478 14
1933.....	4,572,022 54	23,739 77	4,138,367 85	409,914 92
1934.....	4,702,978 78	20,621 45	2,882,037 52	1,800,319 81
Total outstanding water rates December 31, 1934.....				\$2,459,875 24

## METER BRANCH.

Meters in service December 31, 1933 . . . .	101,295
Meters permanently discontinued in 1934 . .	124
	<hr/> 101,171
Meters applied on old services in 1934 . . . .	11
Meters applied on new services in 1934 . . . .	328
	<hr/> 101,510
Total of meters in service December 31, 1934 .	<u>101,510</u>

## METER BRANCH.

Table No. 1. Statement of Work Done During the Year 1934.

MAKE.	New Sels.	Discontinued.	CHANGES.		Tested.	Repaired in Shop.	Repaired in Service.	Resets.
			Out.	In.				
Hersey disc . . . . .	224	76	3,176	4,124	6,429	3,659	785	22
Hersey rotary . . . . .		1	22	3	38	3	44	1
Hersey detector . . . . .	2			1		4	99	
Watchdog . . . . .	101	26	1,315	1,528	2,172	2,274	247	16
Worthington disc . . . . .	4	11	692	379	913	397		
King . . . . .		5	639	12	421	9	160	
Crown . . . . .		1	38		49	2	14	
Nash . . . . .			48	6	55	2	27	
Empire . . . . .			3		5			
Arctic . . . . .	7			40	112		6	1
Federal . . . . .		1	46	8	66	7	19	1
American . . . . .	1	2	80	6	97	3	36	
Lambert . . . . .		1	37	5	55	1	13	
Keystone . . . . .			4		7			
Trident . . . . .			14	2	19		4	
Totals . . . . .	339	124	6,114	6,114	10,438	6,361	1,454	41

Table No. II.

*Meters in Service December 31, 1934.*

MAKE.	DIAMETER IN INCHES.											Totals.
	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8	10	12	
Hersey disc.....	51,147	3,515	1,756	927	417	160	112	32	.....	.....	.....	58,066
Hersey rotary.....	336	244	136	103	138	52	21	15	.....	.....	.....	1,045
Hersey detector.....	.....	.....	.....	.....	.....	4	43	59	34	26	5	171
Hersey compound.....	.....	.....	.....	.....	.....	1	11	13	.....	.....	.....	25
Watchdog.....	22,820	983	1,051	713	424	335	76	.....	.....	.....	.....	26,402
Worthington disc.....	7,608	35	36	12	51	12	.....	.....	.....	.....	.....	7,754
King.....	3,563	207	13	19	17	.....	.....	.....	.....	.....	.....	3,819
Crown.....	223	331	59	73	91	25	26	7	.....	.....	.....	835
Nash.....	159	255	30	10	6	.....	.....	.....	.....	.....	.....	460
Empire.....	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26
Arctic.....	.....	.....	.....	23	19	5	2	.....	.....	.....	.....	49
Federal.....	785	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	785
American.....	842	327	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,169
Lambert.....	233	94	58	.....	14	.....	2	.....	.....	.....	.....	401
Keystone.....	153	150	1	7	3	.....	.....	.....	.....	.....	.....	314
Trident.....	142	3	6	1	12	9	11	1	2	2	.....	189
Totals.....	88,037	6,144	3,146	1,888	1,192	603	304	127	36	28	5	101,510

Table No. III.

*Meters in Shop December 31, 1934.*

MAKE.	DIAMETER IN INCHES.									Totals.
	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	12	
Hersey disc.....	580	102	.....	5	16	2	4	1	.....	710
Hersey detector.....	.....	.....	.....	.....	.....	1	.....	2	1	4
Watch dog.....	9	32	4	13	13	7	.....	.....	.....	78
Worthington disc.....	500	.....	.....	1	1	.....	.....	.....	.....	502
Arctic.....	.....	.....	.....	.....	1	21	8	.....	.....	30
Hersey compound.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Crown.....	.....	.....	.....	.....	.....	.....	2	1	.....	3
Keystone.....	.....	.....	.....	.....	.....	2	.....	1	.....	3
Trident.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Totals.....	1,089	134	4	19	31	34	14	6	1	1,332

Table No. IV.  
Meters Purchased in 1934.

MAKE.	DIAMETER IN INCHES.						Totals.
	$\frac{5}{8}$ in	1	$1\frac{1}{2}$	2	3	4	
Arctic.....	.....	.....	20	20	25	10	75
Hersey disc.....	3,950	25	.....	.....	.....	.....	3,975
Hersey detector.....	.....	.....	.....	.....	.....	1	1
Totals.....	3,950	25	20	20	25	11	4,051

Table No. V.  
Meters Reset in 1934.

MAKE.	DIAMETER IN INCHES.							Totals.	Occupied.	Connection Pieces.
	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4			
Hersey disc.....	2,617	79	20	7	5	1	.....	2,729	22	2,707
Watch dog.....	346	27	11	4	1	.....	.....	389	16	373
Federal.....	3	.....	.....	.....	.....	.....	.....	3	1	2
Worthington disc.....	96	.....	1	.....	.....	.....	.....	97	.....	97
Hersey rotary.....	.....	.....	.....	.....	.....	.....	1	1	1	.....
King.....	5	.....	.....	.....	.....	.....	.....	5	.....	5
American.....	3	.....	.....	.....	.....	.....	.....	3	.....	3
Arctic.....	.....	.....	.....	1	1	.....	.....	2	1	1
Totals.....	3,070	106	32	12	7	1	1	3,229	41	3,188

Table No. VI.

*Meters Repaired in Service in 1934.*

MAKE.	Defaced.	Clock Broken.	Spindle Leak.	Coupling Leak.	Stoppage.	Miscellaneous.	Totals.
Hersey disc.....	66	49	408	156	12	94	785
Hersey detector.....	21	12	.....	.....	5	61	99
Hersey rotary.....	9	5	.....	15	1	14	44
Watch dog.....	58	11	81	64	4	29	247
King.....	17	5	64	29	1	44	160
Crown.....	1	1	4	7	.....	1	14
Nash.....	2	.....	19	4	1	1	27
Federal.....	7	2	.....	4	3	3	19
American.....	14	11	.....	9	.....	2	36
Lambert.....	5	.....	.....	6	.....	2	13
Trident.....	1	1	.....	2	.....	.....	4
Arctic.....	.....	3	.....	2	.....	1	6
Totals.....	201	100	576	298	27	252	1,454





Table No. X.

*Meters Discontinued in 1934.*

MAKE.	DIAMETER IN INCHES.							Totals.	Connection Pieces.	Vacancy.	Discontinued.	Enlarged.
	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4					
Hersey disc.....	1,767	77	29	11	11	2	1	1,898	1,706	112	76	4
Worthington disc.....	365	4	.....	.....	1	.....	.....	370	345	14	11	
Watch dog.....	775	21	17	5	4	3	.....	825	752	45	26	2
King.....	228	4	3	.....	.....	.....	.....	235	225	5	5	
Hersey rotary.....	2	2	.....	3	1	.....	.....	8	6	1	1	
Lambert.....	2	3	.....	.....	.....	.....	.....	5	3	1	1	
American.....	36	9	.....	.....	.....	.....	.....	45	40	2	2	1
Crown.....	2	3	3	.....	1	.....	.....	9	6	2	1	
Federal.....	27	.....	.....	.....	.....	.....	.....	27	26	.....	1	
Keystone.....	3	1	.....	.....	.....	.....	.....	4	3	1		
Nash.....	10	.....	.....	.....	.....	.....	.....	10	9	1		
Empire.....	1	.....	.....	.....	.....	.....	.....	1	1			
Trident.....	7	.....	.....	.....	.....	.....	.....	7	7			
Totals.....	3,225	124	52	19	18	5	1	3,444	3,129	184	124	7

## APPENDIX F.

REPORT OF THE BOSTON AND CAMBRIDGE  
BRIDGE COMMISSION.

BOSTON, January 2, 1935.

*To the Honorable the Mayor:*

SIR—As Commissioner for the City of Boston, I respectfully submit herewith the annual report of the Boston and Cambridge Bridges Commission for the year ending December 31, 1934.

The commission is composed of two members, one appointed by the Mayor of the City of Boston and the other by the Mayor of the City of Cambridge, under provisions of chapter 467, Acts of 1898.

The commission has charge of the maintenance of the following named bridges between Boston and Cambridge:

Cottage Farm, Longfellow and Prison Point.

As there is no separate appropriation made for the City of Boston's portion of the expenses of this commission, the same is taken from the appropriation for the Bridge and Ferry Division, Bridge Service. The amount expended during the fiscal year ending December 31, 1934, was \$6,711.66.

BRIDGES, REPAIRS, ETC., LONGFELLOW BRIDGE.

A final payment of \$459.82 was made to Quinn Brothers on February 6, 1934, under contract for furnishing and installing cables and lights on this bridge.

Respectfully submitted,

C. J. CARVEN,  
*Commissioner for the City of Boston.*

**Boston and Cambridge Bridges. Expenditures for the Year Ending  
December 31, 1934.**

*Being the Portion Paid by the City of Boston, Which is One Half of the Total Expenditure.*

	Administration.	Cottage Farm Bridge.	Longfellow Bridge.	Prison Point Bridge.	Totals.
Salaries.....	\$122 16	.....	\$3,204 84	.....	\$3,327 00
Inspection.....	.....	\$103 90	229 90	\$241 90	575 70
Light.....	.....	939 43	1,797 48	.....	2,736 91
Supplies.....	.....	.....	64 15	.....	64 15
Printing and stationery.....	7 90	.....	.....	.....	7 90
Totals.....	\$130 06	\$1,043 33	\$5,296 37	\$241 90	\$6,711 66



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